

FIG. 1

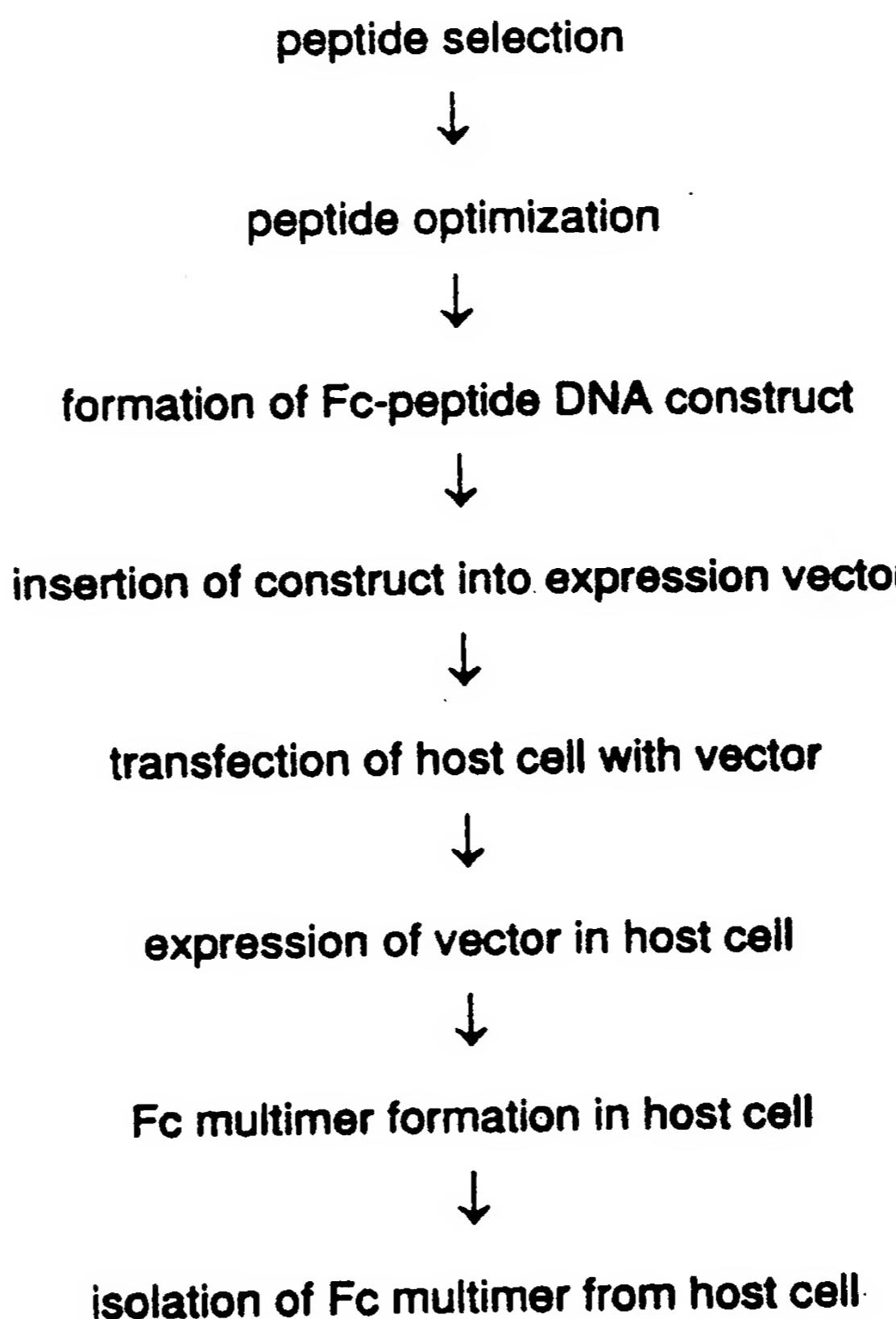


FIG. 2A

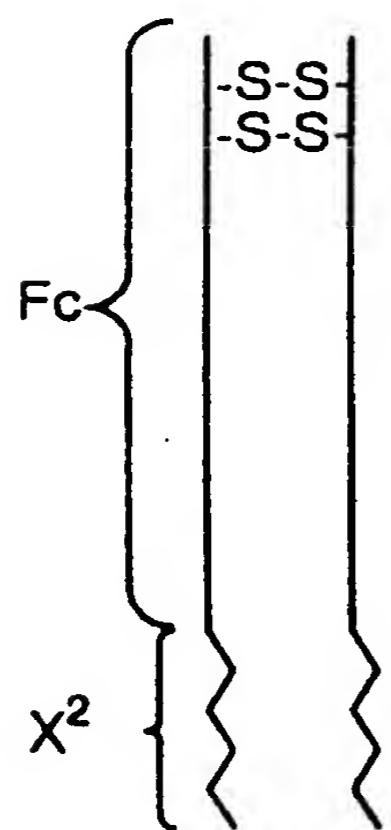


FIG. 2B

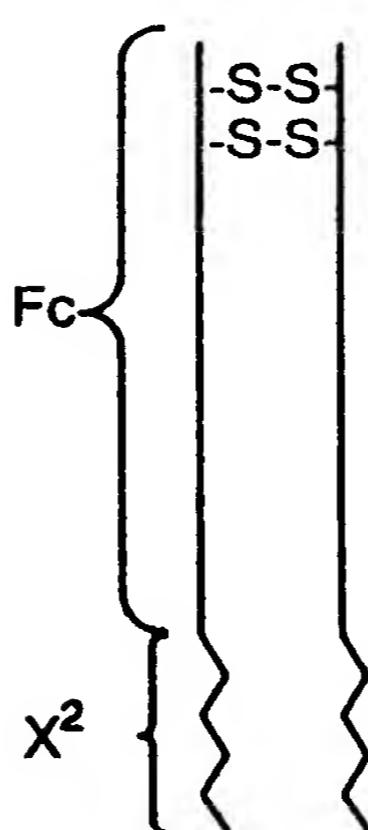


FIG. 2C

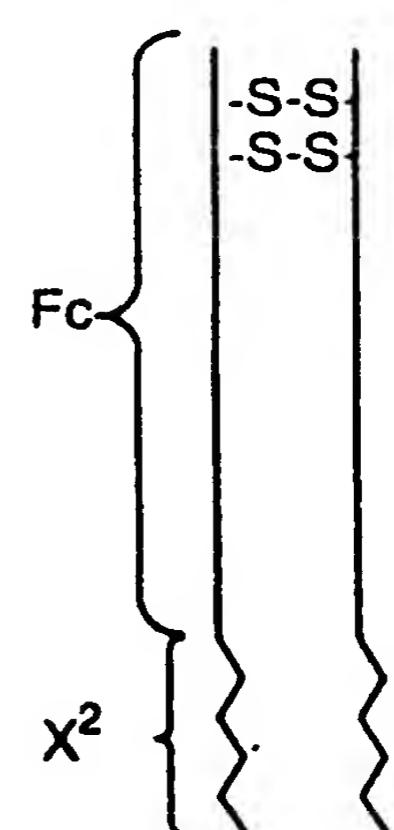


FIG. 2D

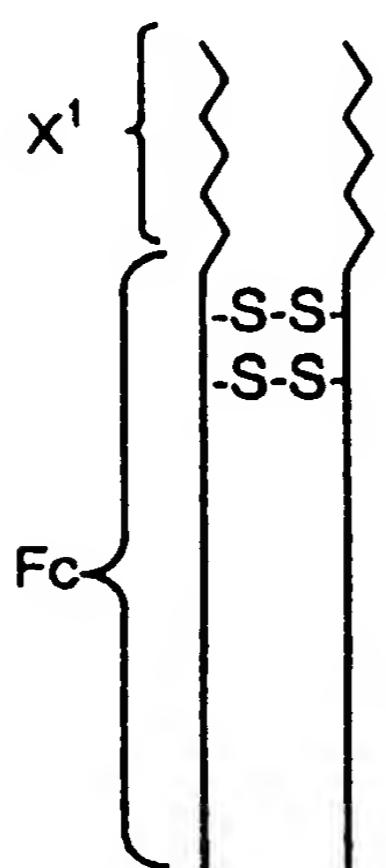


FIG. 2E

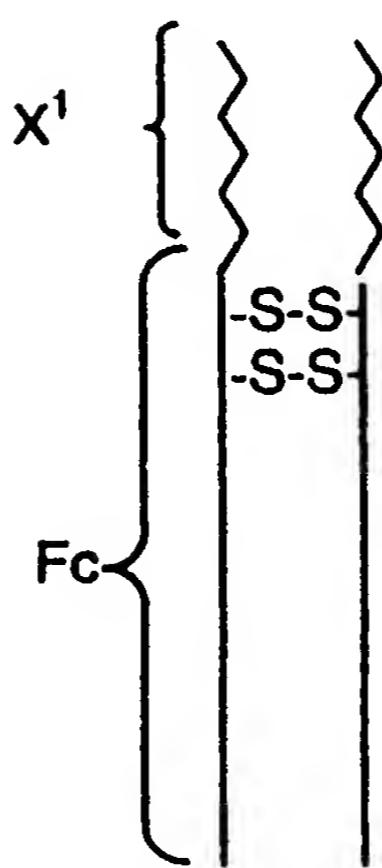


FIG. 2F

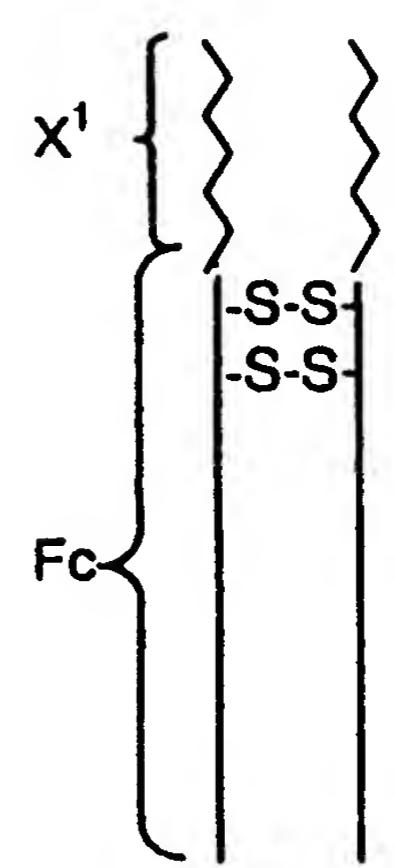


FIG. 3A

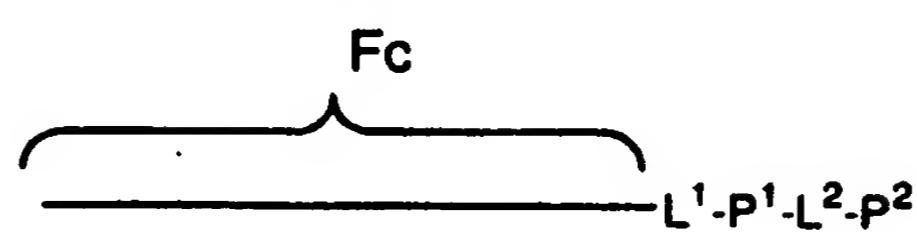


FIG. 3B

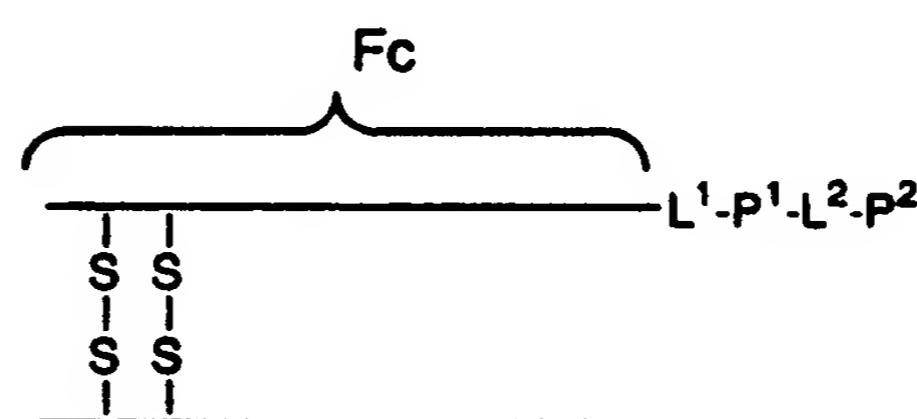


FIG. 3C

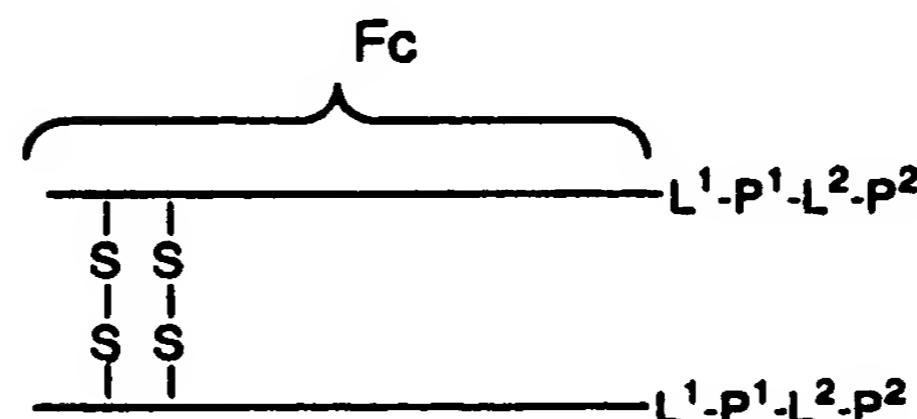


FIG. 4

FIG. 5

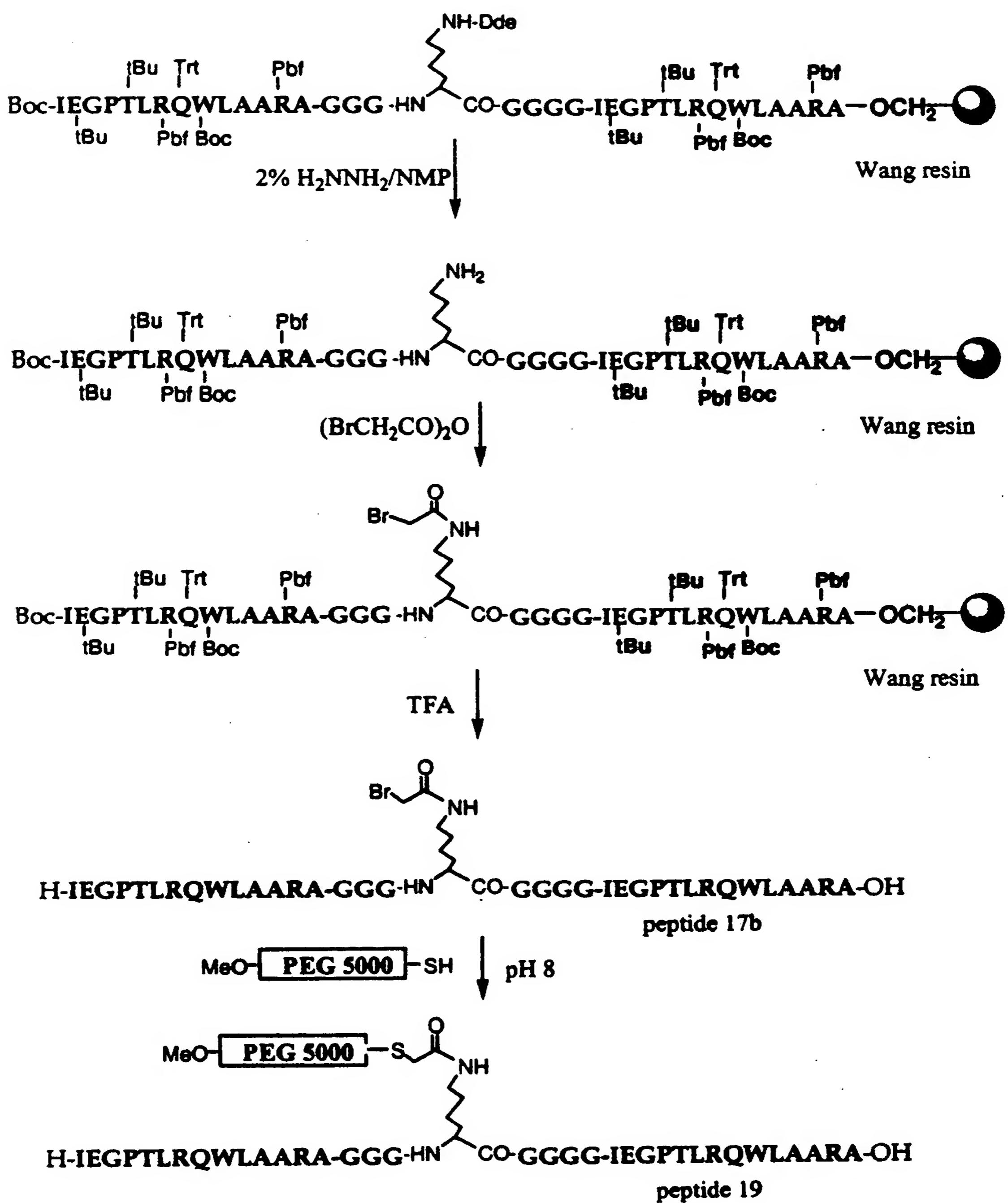


FIG. 6

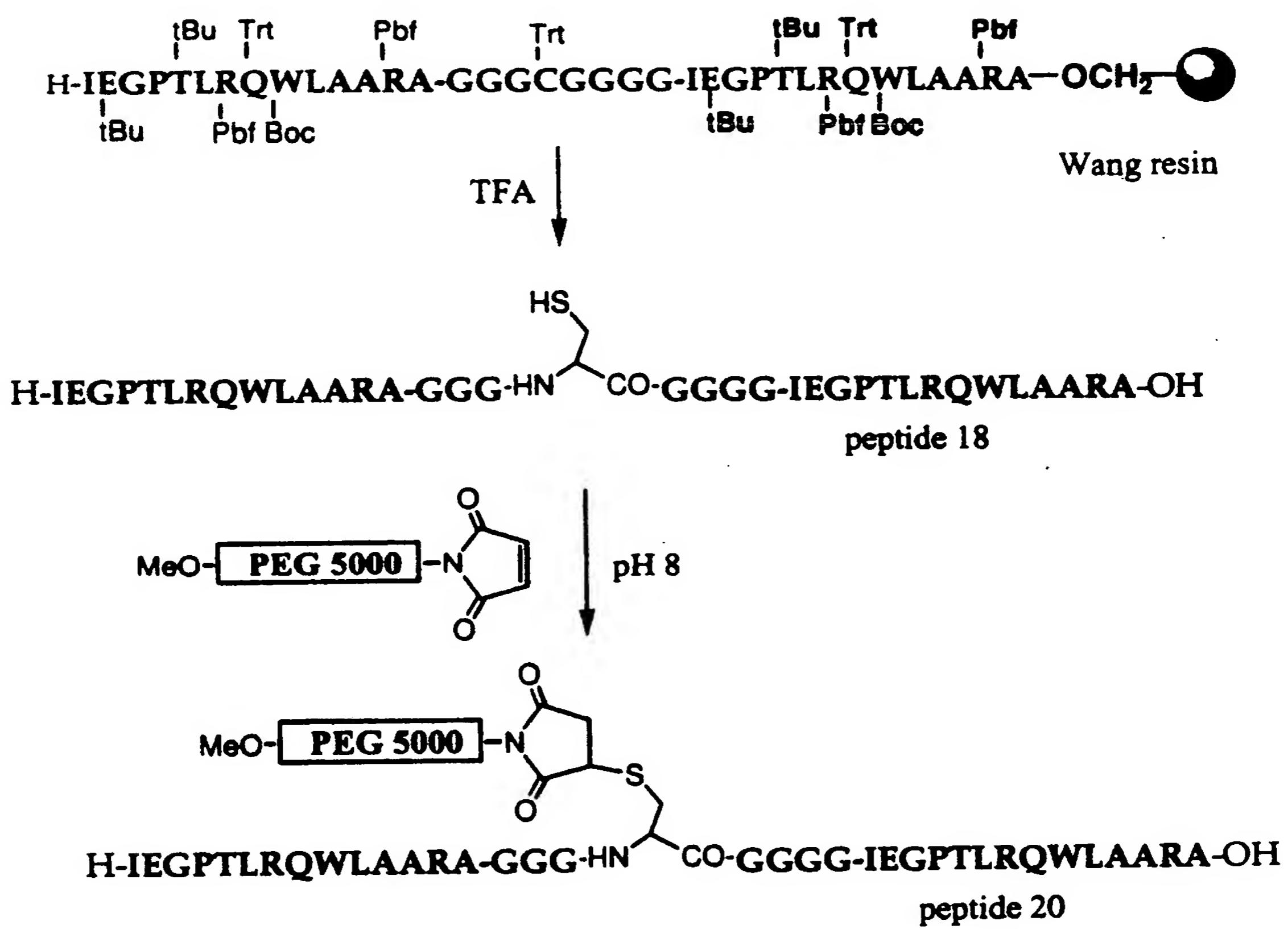


FIG. 7

FIG. 7

XbaI

1 TCTAGATTGTTAACTAATTAAAGGAGGAATAACATATGGACAAACTCACACATGTC
 60 AGATCTAAACAAAATTGATTAATTCCCTCCTTATTGTATACCTGTTTGAGTGTGTACAG
 M D K T H T C P -
 61 CACCTTGTCCAGCTCCGGAACTCCTGGGGGACCGTCAGTCTTCCCTCTTCCCCC AAAAC
 120 GTGGAACAGGTCGAGGCCTTGAGGACCCCCCTGGCAGTCAGAAGGAGAAGGGGGTTTG
 P C P A P E L L G G P S V F L F P P K P -
 121 CCAAGGACACCCTCATGATCTCCCGAACCCCTGAGGTACATGCGTGGTGGACGTGA
 180 GGTTCTGTGGGAGTACTAGAGGGCCTGGGACTCCAGTGTACGCACCACCTGCAC
 K D T L M I S R T P E V T C V V V D V S -
 181 GCCACGAAGACCCCTGAGGTCAAGTTCAACTGGTACGTGGACGGCGTGGAGGTGCATAATG
 240 CGGTGCTTCTGGGACTCCAGTTCAAGTTGACCATGCACCTGCCGCACCTCCACGTATTAC
 H E D P E V K F N W Y V D G V E V H N A -
 241 CCAAGACAAAGCCGGGAGGAGCAGTACAACAGCACGTACCGTGTGGTCAGCGTCTCA
 300 GGTTCTGTTCGCGCCCTCCTCGTCATGTTGTCGTGCATGGCACACCAGTCGCAGGAGT
 K T K P R E E Q Y N S T Y R V V S V L T -
 301 CCGTCCTGCACCAGGACTGGCTGAATGGCAAGGAGTACAAGTGCAGGTCTCCAACAAAG
 360 GGCAGGACGTGGTCCCTGACCGACTTACCGTTCTCATGTTCACGTTCCAGAGGTTGTTTC
 V L H Q D W L N G K E Y K C K V S N K A -
 361 CCCTCCCAGCCCCATCGAGAAAACCATCTCAAAGCCAAAGGCAGCCCCGAGAACAC
 420 GGGAGGGTCGGGGTAGCTCTTGGTAGAGGTTTCGGTTCCCGTCCGGCTCTGGTG
 L P A P I E K T I S K A K G Q P R E P Q -
 421 AGGTGTACACCCTGCCCATCCGGATGAGCTGACCAAGAACAGGTCAAGCCTGACCT
 480 TCCACATGTGGGACGGGGTAGGGCCCTACTCGACTGGTCTGGTCCAGTCGGACTGGA
 V Y T L P P S R D E L T K N Q V S L T C -
 481 GCCTGGTCAAAGGCTTCTATCCCAGCGACATGCCGTGGAGTGGAGAGCAATGGCAGC
 540 CGGACCAAGTTCCGAAGATAAGGTCGCTGTAGCCGCACCTCACCCCTCGTTACCGTCG
 L V K G F Y P S D I A V E W E S N G Q P -
 541 CGGAGAACAACTACAAGACCAACGCCTCCGTGCTGACTCCGACGGCTCCTCTTCT
 600 GCCTCTTGTGATGTTCTGGTGGAGGGACGACCTGAGGCTGCCGAGGAAGAAGGAGA
 E N N Y K T T P P V L D S D G S F F L Y -
 601 ACAGCAAGCTACCGTGGACAAGAGCAGGTGGCAGCAGGGAACGTCTTCATGCTCCG
 660 TGTCGTTCGAGTGGCACCTGTTCTCGTCCACCGTCGTCCCTTGAGAACAGAGTACGAGGC
 S K L T V D K S R W Q Q G N V F S C S V -
 661 TGATGCATGAGGCTCTGCACAAACACTACACGCAGAAGAGCCTCTCCCTGTCTCCGGTA
 720 ACTACGTACTCCGAGACGTGTTGGTATGTCGTCTCGGAGAGGGACAGAGGCCAT
 M H E A L H N H Y T Q K S L S L S P G K -
 721 AAGGTGGAGGTGGTGGTATCGAAGGTCCGACTCTCGTCAGTGGCTGGCTGCTCGTGT
 780 TTCCACCTCCACCACTAGCTCCAGGCTGAGACGCAGTCACCGACCGACGAGCACGAA
 G G G G G I E G P T L R Q W L A A R A -
 BamHI
 781 AATCTCGAGGATCC 794
 TTAGAGCTCCTAGG

FIG. 8

XbaI

1 TCTAGATTGTTAACTAATTAAAGGAGGAATAACATATGGACAAACTCACACATGTC
1 AGATCTAAACAAAATTGATTAATTCCCTCCTATTGTATACCTGTTTGAGTGTGTACAG
1 M D K T H T C P .

61 CACCTTGTCCAGCTCCGGAACTCCTGGGGGACCGTCAGTCCTCCTCTTCCCCAAAAC
61 GTGGAACAGGTCGAGGCCTTGAGGACCCCCCTGGCAGTCAGAAGGAGAAGGGGGTTTG
61 P C P A P E L L G G P S V F L F P P K P .

121 CCAAGGACACCCCTCATGATCTCCGGACCCCTGAGGTACATGCGTGGTGGACGTGA
121 GTTCTGTGGGAGTACTAGAGGGCTGGGACTCCAGTGTACGCCACCCACCTGCACT
121 R D T L M I S R T P E V T C V V V D V S .

181 GCCACGAAGACCCCTGAGGTCAAGTTCAACTGGTACGTGGACGGCTGGAGGTGCATAATG
181 CGGTGCTTCTGGGACTCCAGTTCAAGTTGACCATGCACCTGCCACCTCCACGTATTAC
181 H E D P E V K F N W Y V D G V E V H N A .

241 CCAAGACAAAGCCGCGGGAGGAGCAGTACAACACGACGTACCGTGTGGTCAGCGTCTCA
241 GTTCTGTTGGCGCCCTCCTCGTCATGTTGCGATGGCACACCAGTCGAGGAGT
241 K T K P R E E Q Y N S T Y R V V S V L T .

301 CCGTCCTGCACCAGGACTGGCTGAATGGCAAGGAGTACAAGTGCAGGTCTCCAACAAAG
301 GGCAGGACGTGGTCTGACCTTACCGTTCCATGTTCACGTTCCAGAGGTTGTTTC
301 V L H Q D W L N G K E Y K C K V S N K A .

361 CCCTCCCAGCCCCATCGAGAAAACCATCTCAAAGCCAAGGGCAGCCCCGAGAACAC
361 GGGAGGGTCGGGGTAGCTCTTGGTAGAGGTTTCGGTTCCCGTCGGGCTCTGGTG
361 L P A P I E K T I S R A K G Q P R E P Q .

421 AGGTGTACACCCCTGCCCATCCGGATGAGCTGACCAAGAACAGGTAGCCTGACCT
421 TCCACATGTGGGACGGGGTAGGGCCCTACTCGACTGGTCTTGGTCCAGTCGACTGGA
421 V Y T L P P S R D E L T K N Q V S L T C .

481 GCCTGGTCAAAGGTTCTATCCAGCGACATGCCGTGGAGTGGAGAGCAATGGCAGC
481 CGGACCAAGTTCCGAAGATAGGGTCGCTGTAGCGGCACCTCACCCCTCGTTACCGTCG
481 L V K G F Y P S D I A V E W E S N G Q P .

541 CGGAGAACAACTACAAGACCAACGCCCTCCGTGGACTCCGACGGCTCTTCTCT
541 GCCTCTGTTGATGTTCTGGTCCGGAGGGCACGACCTGAGGCTGCCAGGAAGGAGA
541 E N N Y K T T P P V L D S D G S F F L Y .

601 ACAGCAAGCTACCGTGGACAAGAGCAGGTGGCAGCAGGGAACGTCTCTCATGCTCCG
601 TGTGGTTGAGTGGCACCTGTTCTCGTCCACCGTCGTCCCTTGAGAAGAGTACGAGGC
601 S K L T V D K S R W Q Q G N V F S C S V .

661 TGATGCATGAGGCTCTGCACAACACTACACGCAGAAGAGCCTCTCCCTGTCTCCGGTA
661 ACTACGTACTCCGAGACGTGTTGGTATGTCGCTCTCGGAGAGGACAGAGGCCAT
661 M H E A L H N H Y T Q K S L S L S P G K .

721 AAGGTGGAGGTGGTGGTATCGAAGGTCCGACTCTCGTCAGTGGCTGGCTGCTGCTG
721 TTCCACCTCCACCACTAGCTCCAGGCTGAGACGCAGTCACCGACCGAGCACGAC
721 G G G G G I E G P T L R Q W L A A R A G .

781 GTGGTGGAGGTGGCGGGAGGTATTGAGGGCCAACCTCGCCAATGGCTTGAGCAC
781 CACCAACCTCCACCGCCCTCCATAACTCCGGTTGGAGCGGTTACCGAACGTCGTG
781 G G G G G G I E G P T L R Q W L A A R .

BamHI

841 GCGCATAATCTCGAGGATCCG
841 CGCGTATTAGAGCTCCTAGGC

FIG. 9

XbaI

1 TCTAGATTGTTAACTAATTAAAGGAGGAATAACATATGATCGAAGGTCCGACTCTGC
1 AGATCTAAACAAAATTGATTAATTCCCTCCTTATTGTATACTAGCTTCAGGCTGAGACG 60
c M I E G P T L R .

61 GTCAGTGGCTGGCTGCTCGTGCCTGGCGGTGGTGGCGGAGGGGGTGGCATTGAGGGCCAA 120
c CAGTCACCGACCGACGAGCACCGCCACCACCGCCTCCCCCACCGTAACCTCCGGTT
c Q W L A A R A G G G G G G G G I E G P T .

121 CCCTTCGCCAATGGCTTGACGCACCGCGCAGGGGGAGGGCGTGGGACAAAACACAT 180
c GGGAAAGCGGTTACCGAACGTCGTGCCTCCCCCTCCGCCACCCCTGTTTGAGTGTGTA
c L R Q W L A A R A G G G G G G D K T H T C .

181 GTCCACCTTGCCTGACCTGAACCTCCTGGGGGACCGTCAGTTTCCCTCTCCCCCAA 240
c CAGGTGGAACGGGTGACTTGAGGACCCCCCTGGCAGTCACGAAAGGAGAAGGGGGTT
c P P C P A P E L L G G P S V F L F P P K .

241 AACCCAAGGACACCCCTCATGATCTCCGGACCCCTGAGGTACATGCGTGGTGGACG 300
c TTGGGTTCTGTGGAGTACTAGAGGGCTGGGACTCCAGTGTACGCACCAACCTGC
c P K D T L M I S R T P E V T C V V V D V .

301 TGAGCCACGAAGACCCCTGAGGTCAAGTTCAACTGGTACGTGGACGGCGTGGAGGTGCATA 360
c ACTCGGTGCTTCTGGGACTCCAGTTCAAGTTGACCATGCACTGCCACCTCCACGTAT
c S H E D P E V K F N W Y V D G V E V H N .

361 ATGCCAAGACAAAGCCGGAGGAGCAGTACAACACAGCACGTACCGTGTGGTCAGCGTCC 420
c TACGGTTCTGTTGGCGCCCTCCTCGTATGTTGTCGTGCATGGCACACCAAGTCGCAGG
c A K T K P R E E Q Y N S T Y R V V S V L .

421 TCACCGTCTGCACCAGGACTGGCTGAATGGCAAGGAGTACAAGTCAAGGTCTCCAACA 480
c AGTGGCAGGACGTGGCTCTGACCGACTTACCGTTCTCATGTTCACGTCCAGAGGTTGT
c T V L H Q D W L N G K E Y K C K V S N K .

481 AAGCCCTCCCAGCCCCATCGAGAAAACCATCTCAAAGCAAAGGGCAGCCCCGAGAAC 540
c TTGGGAGGGTCGGGGTAGCTCTTGGTAGAGGTTTCGGTTCCGGCTGGGCTCTG
c A L P A P I E K T I S K A K G Q P R E P .

541 CACAGGTGTACACCCCTGCCCCCATCCGGATGAGCTGACCAAGAACAGGTCAAGCTGA 600
c GTGTCCACATGTGGACGGGGTAGGGCCCTACTCGACTGGTTCTGGTCCAGTCGGACT
c Q V Y T L P P S R D E L T K N Q V S L T .

601 CCTGCCTGGTCAAAGGCTTCTATCCAGCGACATGCCGTGGAGTGGAGAGCAATGGGC 660
c GGACGGACCAGTTCCGAAGATAGGGCGCTGAGCGGCACCTCACCCCTCGTTACCCG
c C L V K G F Y P S D I A V E W E S N G Q .

661 AGCCGGAGAACAACTACAAGACCACGCCCTCCGTGCTGGACTCCGACGGCTCTTCC 720
c TCGGCCTCTTGGTATGTTCTGGTGCAGGGCACGACCTGAGGCTGCCAGGAAGAAGG
c P E N N Y K T T P P V L D S D G S P P L .

721 TCTACAGCAAGCTACCGTGGACAAGAGCAGGTGGCAGCAGGGAACGTCTCTCATGCT 780
c AGATGTCGTTGAGTGGCACCTGTTCTCGTCACCGTCGTCCCTTGAGAAGAGTACGA
c Y S K L T V D K S R W Q Q G N V F S C S .

781 CCGTGATGCATGAGGCTCTGCACAACCACTACACGAGAAGAGCCTCTCCGTCTCCGG 840
c GGCACACTACGTACTCCGAGACGTGGTATGTCGTCTCTGGAGAGGGACAGAGGCC
c V M H E A L H N H Y T Q K S L S L S P G .

BamHI

841 GTAAATAATGGATCC 855

c CATTATTACCTAGG

c K *

FIG. 10

XbaI

1 TCTAGATTGTTAACTAATTAAAGGAGGAATAACATATGATCGAAGGTCCGACTCTGC
1 AGATCTAAACAAAATTGATTAATTCTCCTTATTGTATACTAGCTTCAGGCTGAGACG
c M I E G P T L R -
61 GTCAGTGGCTGGCTGCTCGTGGCTGGAGGCAGTGGGGACAAAACACACATGTCCAC
61 CAGTCACCGACCGACGAGCACCCACCTCCGCCACCCCTGTTTGAGTGTACAGGTG
c Q W L A A R A G G G G G D K T H T C P P -
121 CTTGCCAGCACCTGAACCTCCTGGGGGACCGTCAGTTCTCTTCCCCAAAACCA
121 GAACGGGTCTGGACTTGAGGACCCCCCTGGCAGTCAAAAGGAGAAGGGGGTTTGGGT
c C P A P E L L G G P S V F L P P P K P K -
181 AGGACACCCCTCATGATCTCCGGACCCCTGAGGTACATGCGTGGTGGACGTGAGCC
181 TCCTGTGGGAGTACTAGAGGGCCTGGGACTCCAGTGTACGCACCAACCTGCACTCGG
c D T L M I S R T P E V T C V V V D V S H -
241 ACGAAGACCCCTGAGGTCAAGTTCAACTGGTACGTGGACGGCTGGAGGTGCATAATGCCA
241 TGCTTCTGGGACTCCAGTTCAAGTTGACCATGCACCTGCCACCTCACGTATTACGGT
c E D P E V K F N W Y V D G V E V H N A K -
301 AGACAAAGCCGGAGGAGCAGTACAACAGCACGTACCGTGTGGTCAGCGTCTCACCG
301 TCTGTTCTGGCGCCCTCCTCGTCATGTTGCGTGCATGGCACACCAGTCGAGGAGTGGC
c T K P R E E Q Y N S T Y R V V S V L T V -
361 TCCTGCACCAAGGACTGGCTGAATGGCAAGGAGTACAAGTGCAGGTCTCCAACAAAGCC
361 AGGACGTGGCTCTGACCGACTTACCGTTCCATGTTCACGTTCCAGAGGTTGGGG
c L H Q D W L N G K E Y K C K V S N K A L -
421 TCCCAGCCCCATCGAGAAAACCATCTCAAAGCCAAAGGGCAGCCCCGAGAACACAGG
421 AGGGTCGGGGTAGCTCTTTGGTAGAGGTTTCGGTTCCCGTGGGCTCTGGTGTCC
c P A P I E K T I S K A K G Q P R E P Q V -
481 TGTACACCCCTGCCCATCCGGATGAGCTGACCAAGAACAGGTCAAGCTGACCTGCC
481 ACATGTGGACGGGGTAGGGCCCTACTCGACTGGTCTTGGTCCAGTCGGACTGGACGG
c Y T L P P S R D E L T K N Q V S L T C L -
541 TGGTCAAAGGCTTCTATCCCAGCGACATGCCGTGGAGTGGAGAGCAATGGCAGCCGG
541 ACCAGTTCCGAAGATAGGGTCGCTGTAGGGCACCTCACCCCTCGTTACCGTGGCC
c V K G F Y P S D I A V E W E S N G Q P E -
601 AGAACAACTACAAGACCACGCCCTCCGTGGACTCCGACGGCTCTTCTTCTACA
601 TCTTGTGATGTTCTGGTGGAGGGCACCTGAGGCTGCCAGGAAGAAGGAGATGT
c N N Y K T T P P V L D S D G S F F L Y S -
661 GCAAGCTCACCGTGGACAAGAGCAGGTGGCAGCAGGGAACGTCTCTCATGCTCCGTGA
661 CGTTGAGTGGCACCTGTTCTCGTCCACCGTCGTCCCTGCAGAAGAGTACGAGGCAC
c K L T V D K S R W Q Q G N V P S C S V M -
721 TGCATGAGGCTCTGCACAACACTACACGCAGAAGAGCCTCTCCGTCTCCGGTAAAT
721 ACGTACTCCGAGACGTGTTGGTATGTGCGTCTCTCGGAGAGGACAGAGGCCATTAA
c H E A L H N H Y T Q K S L S L S P G K * -
BamHI
AATGGATCC
781 789
TTACCTAGG

FIG.11

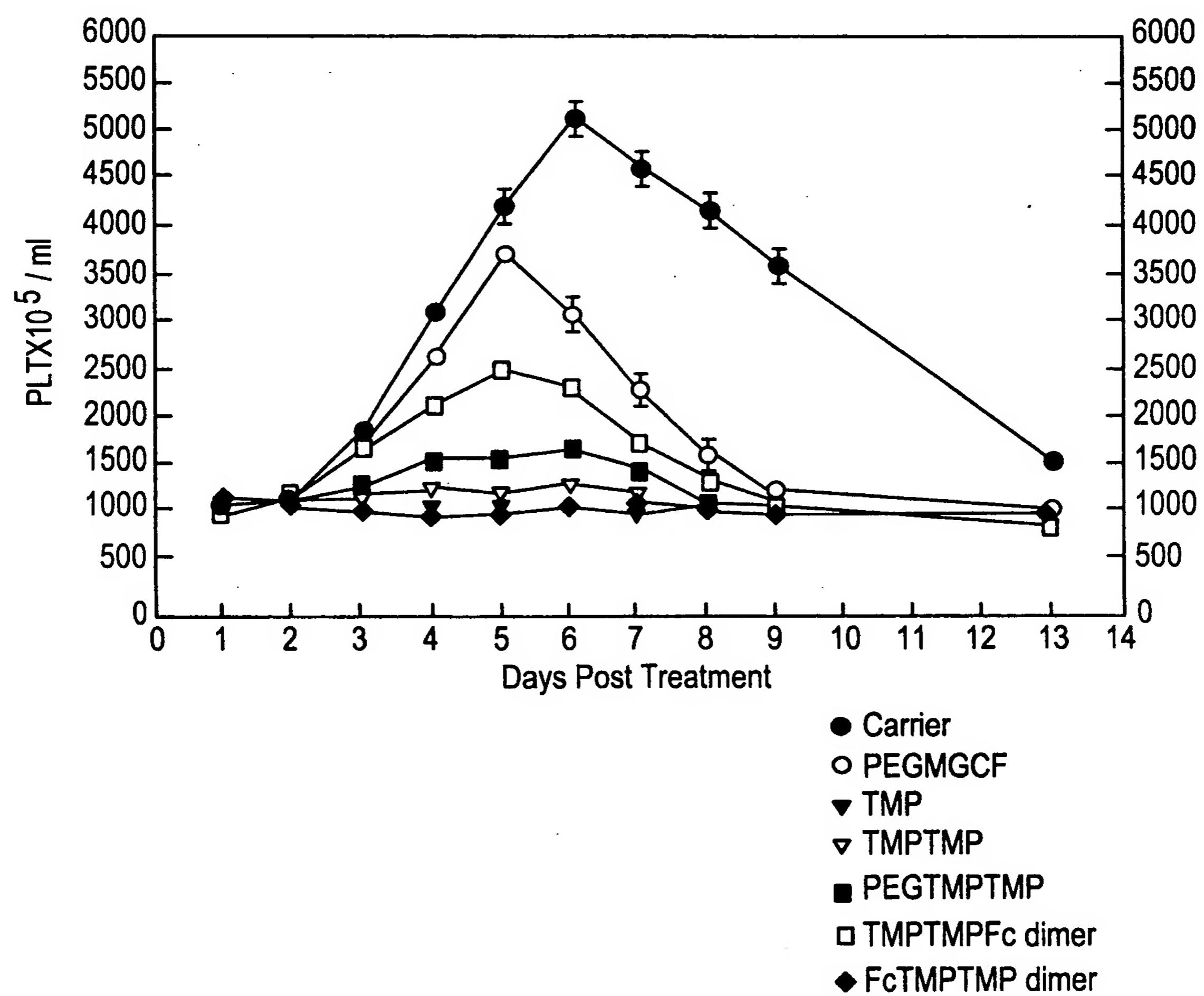


FIG.12

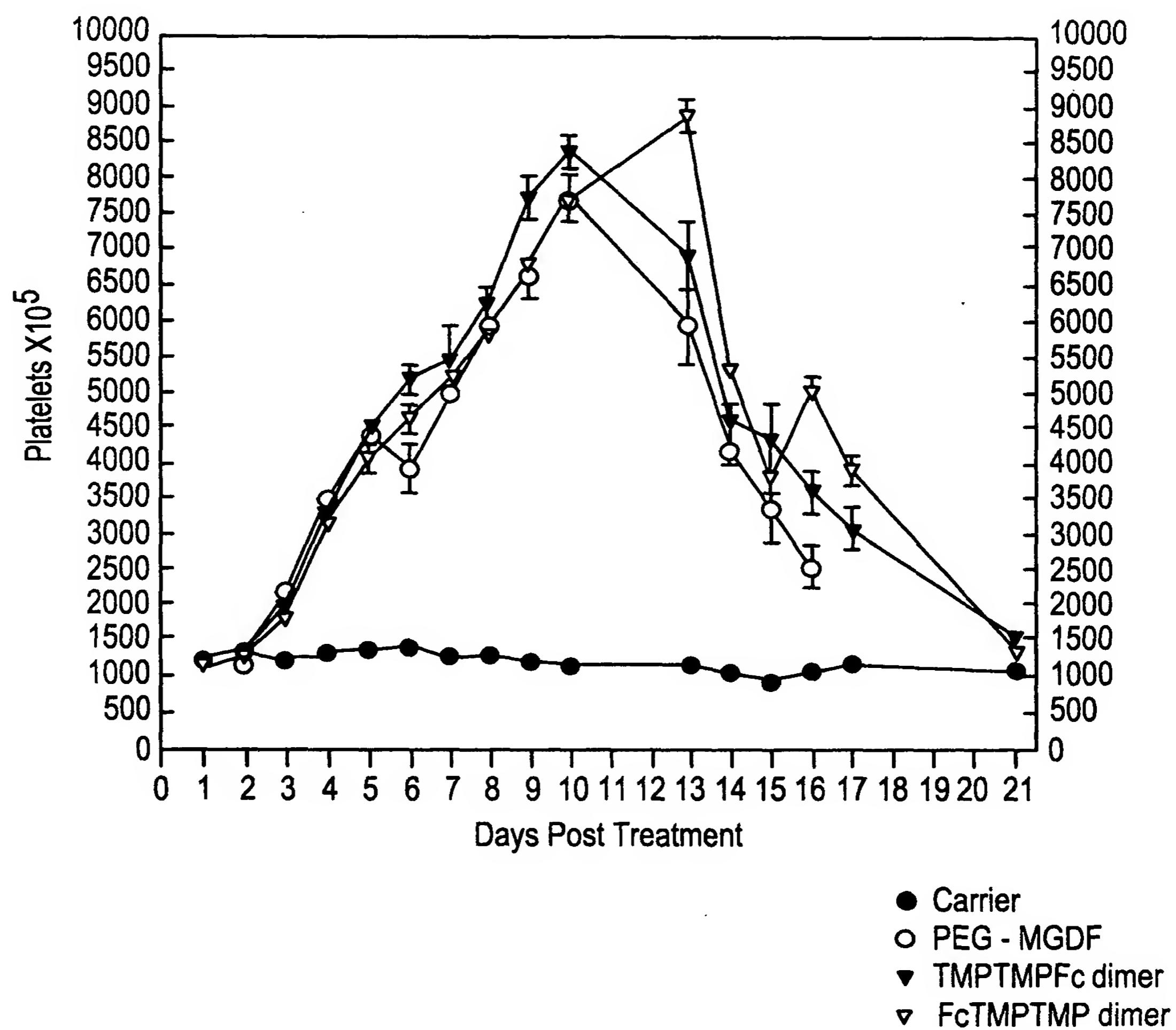


FIG. 13

XbaI
|
1 TCTAGATTGTTAACTAATTAAAGGAGGAATAACATATGGACAAACTCACACATGTC 60
c AGATCTAAACAAAATTGATTAATTCTCTCTTATTGTATACCTGTTGAGTGTGTACAG M D K T H T C P
|
61 CACCTTGTCCAGCTCCGAACTCCTGGGGGACCGTCAGTCTCCTCTCCCCCAAAAC 120
c GTGGAACAGGTCGAGGCCTTGAGGACCCCCCTGGCAGTCAGAAGGAGAAGGGGGTTTG P C P A P E L L G G P S V F L F P P K P
|
121 CCAAGGACACCCCTCATGATCTCCGGACCCCTGAGGTACATGCGTGGTGGACGTGA 180
c GGTTCTGTGGGAGTACTAGAGGGCTGGGACTCCAGTGTACGCACCCACCTGCACT K D T L M I S R T P E V T C V V V D V S
|
181 GCCACCGAAGACCCCTGAGGTCAAGTTCAACTGGTACGTGGACGGCGTGGAGGTGCATAATG 240
c CGGTGCTTCTGGGACTCCAGTTCAAGTTGACCATGCACCTGCCGCACCTCCACGTATTAC H E D P E V K F N W Y V D G V E V H N A
|
241 CCAAGACAAAGCCGGAGGAGCAGTACAACACAGCACGTACCGTGTGGTCAGCGTCCTCA 300
c GGTTCTGTTCGGCCCTCTCGTCATGTTGTCGTGCATGGCACACCAGTCGCAGGAGT K T K P R E E Q Y N S T Y R V V S V L T
|
301 CCGTCCTGCACCAAGGACTGGCTGAATGGCAAGGAGTACAAGTCAAGGTCTCAACAAAG 360
c GGCAGGACGTGGTCCCTGACCGACTTACCGTTCTCATGTTCACGTTCCAGAGGTTGTTTC V L H Q D W L N G K E Y K C K V S N K A
|
361 CCCTCCCAGCCCCATCGAGAAACCATCTCAAAGCAAAGGGCAGCCCCGAGAACACAC 420
c GGGAGGGTCGGGGTAGCTCTTGGTAGAGGTTTGGTTCCCGTCCGGCTCTGGTG L P A P I E K T I S K A K G Q P R E P Q
|
421 AGGTGTACACCCCTGCCCATCCGGATGAGCTGACCAAGAACCGAGTCAGCCTGACCT 480
c TCCACATGTGGGACGGGGTAGGGCCCTACTCGACTGGTTCTGGTCCAGTCGGACTGGA V Y T L P P S R D E L T K N Q V S L T C
|
481 GCCTGGTCAAAGGCTCTATCCAGCGACATGCCGTGGAGTGGAGAGCAATGGCAGC 540
c CGGACCAAGTTCCGAAGATAGGGTCCGTGTACCGGCACCTCACCCCTCGTTACCGTCG L V K G F Y P S D I A V E W E S N G Q P
|
541 CGGAGAACAACTACAAGACCAACGCCCTCCCGTGGACTCCGACGGCTCTTCCCTCT 600
c GCCTCTTGTGATGTTCTGGTGGAGGGCACGACCTGAGGCTGCCAGGAAGAGGAGA E N N Y K T T P P V L D S D G S F F L Y
|
601 ACAGCAAGCTACCGTGGACAAGAGCAGGTGGCAGCAGGGAACGTCTCTCATGCTCCG 660
c TGTCGTTGAGTGGCACCTGTTCTCGTCCACCGTCGTCCCTGAGAAGAGTACGAGGC S K L T V D K S R W Q Q G N V F S C S V
|
661 TGATGCATGAGGCTCTGCACAACCACTACACGCAGAAGAGCAGGCTCTCCCTGTCTGGGTA 720
c ACTACGTACTCCGAGACGTGTTGGTGTGAGTGTGCGTCTCTCGGAGAGGGACAGAGGCCAT M H E A L H N H Y T Q K S L S L S P G K
|
721 AAGGTGGAGGTGGTGGAGGTACTTACTCTTGCCACTTCGGCCCGCTGACTTGGGTTT 780
c TTCCACCTCCACCAACCCACCTCCATGAATGAGAACGGTGAAGCCGGGACTGAACCCAAA G G G G G G G T Y S C H F G P L T W V C
|
781 GCAAACCGCAGGGTGGTTAATCTCGTGGATCC 812
c CGTTTGGCGTCCCACCAATTAGAGCACCTAGG K P Q G G *

FIG. 14

XbaI
|
1 TCTAGATTTGTTTAACATAATTAAAGGAGGAATAACATATGGGAGGTACTTACTCTTGC
1 AGATCTAAACAAAATTGATTAATTCTCCTTATTGTATACCCCTCCATGAATGAGAACGG
c M G G T Y S C H .
60
61 ACTTCGGCCCGCTGACTTGGGTATGTAAGCCACAAGGGGGTGGGGGAGGCAGGGGGGACA
c TGAAGCCGGCGACTGAACCCATACATTGGTGTCCCCCACCCCTCCGCCCCCTGT
c F G P L T W V C K P Q G G G G G G G D K .
120
121 AAACTCACACATGTCCACCTGCCAGCACCTGAACCTCTGGGGGACCGTCAGTTTCC
c TTTGAGTGTGTACAGGTGGAACGGGTGACTTGAGGACCCCCCTGGCAGTCAGG
c T H T C P P C P A P E L L G G P S V F L .
180
181 TCTTCCCCAAAACCAAGGACACCCTCATGATCTCCGGACCCCTGAGGTACATGCG
c AGAACGGGGTTTGGGTTCTGTGGAGTACTAGAGGGCTGGGACTCCAGTGTACGC
c F P P K P K D T L M I S R T P E V T C V .
240
241 TGGTGGTGGACGTGAGCCACGAAGACCCCTGAGGTCAAGTTCAACTGGTACGTGGACGGCG
c ACCACCACCTGCACTCGGTGCTCTGGACTCCAGTTCAAGTTGACCATGCACCTGCCGC
c V V D V S H E D P E V K F N W Y V D G V .
300
301 TGGAGGTGCATAATGCCAAGACAAAGCCGGAGGAGCAGTACAACACCGTACCGTG
c ACCTCCACGTATTACGGTTCTGTGTTGGCGCCCTCGTCATGTTGTCGTGCATGGCAC
c E V H N A K T K P R E E Q Y N S T Y R V .
360
361 TGGTCAGCGTCCCTACCGTCTGCACCAAGGACTGGCTGAATGCAAGGAGTACAAGTGA
c ACCAGTCGCAAGGACTGGCAGGACGTGGTCTGACCGACTTACCGTTCTCATGTTCACGT
c V S V L T V L H Q D W L N G K E Y K C K .
420
421 AGGTCTCCAACAAAGCCCTCCAGCCCCATCGAGAAAACCATCTCCAAAGCCAAAGGGC
c TCCAGAGGTTGTTGGGAGGGTAGCTCTTGGTAGAGGTTGGTTCCCG
c V S N K A L P A P I E K T I S K A K G Q .
480
481 AGCCCCGAGAACACAGGTGTACACCCCTGCCCATCCGGATGAGCTGACCAAGAAC
c TCGGGGCTCTGGTGTCCACATGTGGACGGGGTAGGGCCCTACTCGACTGGTTCTGG
c P R E P Q V Y T L P P S R D E L T R N Q .
540
541 AGGTCAAGCCTGACCTGCCCTGGTCAAAGGCTTCTATCCAGCGACATGCCGTGGAGTGG
c TCCAGTCGGACTGGACGGACCAGTTCCGAAGATAGGGTCGCTGTAGCGGCACCTCACCC
c V S E T C L V K G F Y P S D I A V E W E .
600
601 AGAGCAATGGCAGCCGGAGAACAACTACAAGACCACGCCCTCCGTGGACTCCGACG
c TCTCGTTACCGTGGCCTCTGTGATGTTCTGGTGGAGGGCACGACCTGAGGCTGC
c S N G Q P E N N Y K T T P P V L D S D G .
660
661 GCTCCTTCTCTACAGCAAGCTACCGTGGACAAGAGCAGGTGGCAGCAGGGAAACG
c CGAGGAAGAAGGAGATGTCGTTGAGTGGCACCTGTTCTCGTCCACCGTCGTCCCCTTGC
c S F P L Y S K L T V D K S R W Q Q G N V .
720
721 TCTTCTCATGCTCCGTGATGCATGAGGCTCTGCACAACCACTACACGAGAAGAGCCTCT
c AGAAGAGTACGAGGCACTACGTACTCCGAGACGTGTTGGTATGTCGTCTCGGAGA
c F S C S V M H E A L H N H Y T Q K S L S .
780
781 BamHI
|
CCCTGTCTCCGGTAAATAATGGATCC
c 807
GGGACAGAGGCCATTATTACCTAGG
c L S P G K *

FIG. 15

XbaI

1 TCTAGATTGAGTTAACCTTTAGAAGGAGGAATAAAATATGGGAGGTACTTACTCTTG
b 1 AGATCTAAACTCAAAATTGAAAATCTTCCTCCTTATTTATACCCCTCATGAATGAGAAC 60
M G G T Y S C -
b 61 CCACTTCGGCCCCTGACTGGTTGCAAACCGCAGGGTGGCGGGCGGGCGGTGG
b 61 GGTGAAGCCGGGTGACTGAACCCAAACGTTGGCGTCCCACCGCCGCCGCCACC 120
H F G P L T W V C K P Q G G G G G G G G G -
b 121 TACCTATTCTGTCACTTGGCCCCTGACCTGGGTATGTAAGCCACAAGGGGGTGGGG
b 121 ATGGATAAGGACAGTAAAACCGGGGACTGGACCCATACATTGGTGTCCCCCACC 180
T Y S C H F G P L T W V C K P Q G G G G G G G -
b 181 AGCGGGGGGGACAAAACACACATGTCCACCTGCCAGCACCTGAACCTGGGGGG
b 181 TCCGCCCCCCCCTGTTTGAGTGTGTACAGGTGGAACGGGTGGACTTGAGGACCCCCC 240
G G G D K T H T C P P C P A P E L L L G G -
b 241 ACCGTCAGTTCTCTCTCCCCAAAACCAAGGACACCCATGATCTCCGGACCCC
b 241 TGGCAGTCAAAGGAGAAGGGGGTTTGGGTTCTGTGGAGTACTAGAGGGCTGGGG 300
P S V F L F P P K P K D T L M I S R T P -
b 301 TGAGGTACATGCGTGGTGGACGTGAGCCACGAAGACCCCTGAGGTCAAGTTCAACTG
b 301 ACTCCAGTGTACGCACCACCTGCACCTGGTCTCTGGACTCCAGTTCAAGTTGAC 360
E V T C V V V D V S H E D P E V K F N W -
b 361 GTACGTGGACGGCGTGGAGGTGCATAATGCCAAGACAAAGCCGGGGAGGAGCAGTACAA
b 361 CATGCACCTGCCGCACCTCACGTATTACGGTTCTGGCGCCCTCGTCATGTT 420
Y V D G V E V H N A K T K P R E E Q Y N -
b 421 CAGCACGTACCGTGTGGTCAGCGTCCTCACCGTCTGCACCAAGGACTGGCTGAATGGCAA
b 421 GTCGTGCATGGCACACCAGTCGCAGGAGTGGCAGGACGTGGCTGACCTACCGTT 480
S T Y R V V S V L T V L H Q D W L N G K -
b 481 GGAGTACAAGTCAAGGTCTCAACAAAGCCCTCCAGCCCCATCGAGAAAACCATCTC
b 481 CCTCATGTTCACGTTCCAGAGGTTGTTGGGAGGGTCGGGGTAGCTCTGGTAGAG 540
E Y K C K V S N K A L P A P I E K T I S -
b 541 CAAAGCCAAGGGCAGCCCCGAGAACACAGGTGTACACCCCTGCCCATCCGGATGA
b 541 GTTTCGGTTTCCCGTCGGGCTCTGGTGTCCACATGTGGACGGGGTAGGGCCCTACT 600
K A K G Q P R E P Q V Y T L P P S R D E -
b 601 GCTGACCAAGAACCAAGGTCAACCTGGTCAAGGCTTCTATCCCAGCGACAT
b 601 CGACTGGTCTGGTCCAGTCGGACTGGACGGACCAGTTCCGAAGATAGGGTCGCTGTA 660
L T K N Q V S L T C L V K G F Y P S D I -
b 661 CGCCGTGGAGTGGAGAGCAATGGCAGCCGGAGAACAACTACAAGACCAACGCCCTCCGT
b 661 GCGGCACCTCACCCCTCTCGTTACCGTCGGCTCTGGTGTGATGTTCTGGTGCAGGGCA 720
A V E W E S N G Q P E N N Y K T T P P V -
b 721 GCTGGACTCCGACGGCTCTTCTACAGCAAGCTACCGTGGACAAGAGCAGGTG
b 721 CGACCTGAGGCTGCCGAGGAAGAAGGAGATGTCGTTGAGTGGACCTGTTCTCGTCCAC 780
L D S D G S P F L Y S K L T V D K S R W -
b 781 GCAGCAGGGGAACGTCTCATGCTCCGTGATGCATGAGGCTCTGCACAACCAACTACAC
b 781 CGTCGTCCCTTGAGAAGAGTACGGAGGCACATCGTACTCCGAGACGTGTTGGTGTGATGTG 840
Q Q G N V F S C S V M H E A L H N H Y T -
b 841 GCAGAAGAGCCTCTCCCTGTCTCCGGTAAATAATGGATCC 881
b 841 CGTCTCTCGGAGAGGGACAGAGGCCATTATTACCTAGG
Q K S L S L S P G K *

FIG. 16

XbaI

1 TCTAGATTGTTTAACTAATTAAAGGAGGAATAACATATGGACAAAACACACATGTC 60
1 AGATCTAAACAAAATTGATTAATTCTCCTTATTGTATACCTGTTGAGTGTGTACAG
c M D K T H T C P .

61 CACCTTGCCCAGCACCTGAACCTCCTGGGGGACCGTCAGTTCTCCTTCCCCAAAAC 120
c GTGGAACGGGTCTGGACTTGAGGACCCCCCTGGCAGTCAAAAGGAGAAGGGGGTTTG
c P C P A P E L L G G P S V F L P P P K P .

121 CCAAGGACACCCCTCATGATCTCCGGACCCCTGAGGTACATGCGTGGTGGACGTGA 180
c GTTCTGTGGAGTACTAGAGGCCTGGGACTCCAGTGTACGCACCACTGCACT
c K D T L M I S R T P E V T C V V V D V S .

181 GCCACGAAGACCCCTGAGGTCAAGTTCAACTGGTACGTGGACGGGTGGAGGTGCATAATG 240
c CGGTGCTCTGGACTCCAGTTCAAGTTGACCATGCACCTGCCACCTCCACGTATTAC
c H E D P E V K F N W Y V D G V E V H N A .

241 CCAAGACAAAGCCGGGAGGAGCAGTACAACACGTACCGTGTGGTCAGCGTCCCTCA 300
c GTTCTGTTCGGCCCTCCTCGTCATGTTGCGATGGCACACCAGTCGCAGGAGT
c K T K P R E E Q Y N S T Y R V V S V L T .

301 CCGTCCTGCACCAGGACTGGCTGAATGGCAAGGAGTACAAGTGAAGGTCTCAAACAAAG 360
c GGCAGGACGTGGCTCTGACCGACTTACCGTTCTCATGTTACGTTCCAGAGGTTGTTTC
c V L H Q D W L N G K E Y K C K V S N . K A -

361 CCCTCCCAGCCCCATCGAGAAAACCATCTCAAAGCAAAGGGCAGCCCCGAGAACAC 420
c GGGAGGGTCGGGGTAGCTCTGGTAGAGGTTTCGGTTCCCGTGGCTCTGGTG
c L P A P I E K T I S K A K G Q P R E P . Q -

421 AGGTGTACACCCCTGCCTCCATCCGGATGAGCTGACCAAGAACAGGTACGCTGACCT 480
c TCCACATGTGGGACGGAGGTAGGGCCCTACTCGACTGGTTCTGGTCCAGTCGGACTGGA
c V Y T L P P S R D E L T K N Q V S L T C .

481 GCCTGGTCAAAGGTTCTATCCAGCGACATGCCGTGGAGTGGAGAGCAATGGCAGC 540
c CGGACCAAGTTCCGAAGATAGGTGCGTAGCGGACCTCACCCCTCTCGTTACCGTCG
c L V K G F Y P S D I A V E W E S N G Q P .

541 CGGAGAACAACTACAAGACCAACGCCCTCCGTGGACTCCGACGGCTCTTCTCT 600
c GCCTCTTGTGATGTTCTGGTGGAGGGACGACCTGAGGCTGCCAGGAAGAAGGAGA
c E N N Y K T T P P V L D S D G S F P L Y -

601 ACAGCAAGCTACCGTGGACAAGAGCAGGTGGCAGCAGGGAACGTCTCTCATGCTCCG 660
c TGTGTTTCGAGTGGCACCTGTTCTCGTCCACCGTCGTCCCTTGAGAAGAGTACGAGGC
c S K L T V D K S R W Q Q G N V F S C S V .

661 TGATGCATGAGGCTCTGCACAACCACTACACCGAGAAGAGCAGGTGGCAGCAGGGAACGTCTCCCTGTCTCCGGTA 720
c ACTACGTACTCCGAGACGTGTTGGTATGTCGCGTCTCTCGGAGAGGGACAGAGGCCAT
c M H E A L H N H Y T Q K S L S L S P G K .

721 AAGGTGGAGGTGGTGGCGGAGGTACTTACTCTGCCACTTCCGGCCACTGACTTGTTT 780
c TTCCACCTCCACCAACCGCCTCCATGAATGAGAACGGTGAAGCCGGGTGACTGAACCCAAA
c G G G G G G T Y S C H F G P L T W V C .

781 GCAAACCGCAGGGTGGCGGGCGGGCGGTGGTACCTATTCTGTCAATTGGCCCGC 840
c CGTTTGGCGTCCCACCGCCGCCGCCACCATGGATAAGGACAGTAAAACCGGGCG
c K P Q G G G G G G G G T Y S C H F G P L .

BamHI

841 TGACCTGGGTATGTAAGCCACAAGGGGTTAACATCTCGAGGATCC 884
c ACTGGACCCATACATTGGTGTCCCCAATTAGAGCTCCTAGG
c T W V C K P Q G G *

FIG. 17A

[AatII sticky end]
(position #4358 in pAMG21)

5' GCGTAACGTATGCATGGTCTCC -
3' TGCACGCATTGCATACGTACCAAGAGG -

-CCATGCGAGAGTAGGAACTGCCAGGCATCAAATAAAACGAAAGGCTAGTCGAAAGACT -
-GGTACGCTCTCATCCCTGACGGTCCGTAGTTATTTGCTTCCGAGTCAGCTTCTGA -
-GGGCCTTCGTTTATCTGTTGTCGGTAAACGCTCTCCTGAGTAGGACAAATCCGC -
-CCCGGAAAGCAAAATAGACAAACAGCCACTTGCAGAGGACTCATCCTGTTAGGCG -
-CGGGAGCGGATTGAACGTTGCGAAGCAACGGCCGGAGGGTGGCGGGCAGGACGCCGC -
-GCCCTCGCCTAAACTTGCAACGCTCGTTGCCGGCCTCCCACCGCCGCTGCGGGCG -
-CATAAACTGCCAGGCATCAAATTAAGCAGAAGGCCATCCTGACGGATGGCTTTGCGT -
-GTATTTGACGGTCCGTAGTTAATTGCTTCCGGTAGGACTGCCTACCGGAAAAACGCA -

AatII

-TTCTACAAACTCTTTGTTATTTCTAAATACATTCAAATATGGACGTCGTACTTAAC -
-AAGATGTTGAGAAAACAAATAAAAGATTATGTAAGTTATACCTGCAGCATGAATTG -
-TTTAAAGTATGGCAATCAATTGCTCCTGTTAAAATTGCTTAGAAATACTTGGCAGC -
-AAAATTCTACACCGTTAGTTAACGAGGACAATTAAACGAAATCTTATGAAACCGTCG -
-GGTTTGTGTATTGAGTTCATTTGCGCATTGTTAAATGGAAAGTGACCGTGCCTTAC -
-CCAAACAACATAACTCAAAGTAAACCGTAACCAATTACCTTCACTGGCACCGGAATG -
-TACAGCCTAATATTGAAATATCCAAGAGCTTTCTGCATGCCACGCTAAAC -
-ATGTCGGATTATAAAACTTATAGGGTCTCGAAAAAGGAAGCGTACGGTGCATTG -
-ATTCTTTCTCTTGGTTAAATCGTTGTTGATTATTGCTATATTATTTTC -
-TAAGAAAAAGAGAAAACCAATTAGCAACAAACTAAATAAACGATATAAATAAAAG -
-GATAATTATCAACTAGAGAAGGAACAATTAAATGGTATGTCATACACGCATGAAAAATA -
-CTATTAATAGTGATCTCTTGTAAATTACCATACAAGTATGCGTACATTAT -
-AACTATCTATAGTTGCTTCTCTGAATGTGCAAAACTAACGATTCCGAAGCCATTAT -
-TTGATAGATATCAACAGAAAGAGACTTACACGTTGATTGTAAGGCTTGGTAATA -
-TAGCAGTATGAATAGGGAAACTAAACCCAGTGATAAGACCTGATGATTCGCTTAA -
-ATCGTCATACTTATCCCTTGATTGGTCACTATTCTGGACTACTAAAGCGAAGAAATT -
-TTACATTGGAGATTTTATTTACAGCATTGTTCAAATATATTCAATTATCGGTG -
-AATGTAACCTCTAAAAATAATGTCGAACAAAGTTATATAAGGTTAATTAGCCAC -
-AATGATTGGAGTTAGAATAATCTACTATAGGATCATATTAAATTAGCGTCATCAT -
-TTACTAACCTCAATCTTATTAGATGATATCCTAGTATAAAATAATTCAACTGAGTA -
-AATATTGCCTCCATTAGGGTAATTATCCAGAATTGAAATATCAGATTAAACCATA -
-TTATAACGGAGGTAAAAATCCCATTAAATAGGTCTTAACTTATAGTCTAAATTGGTATC -
-AATGAGGATAATGATCGCGAGTAAATAATATTACAATGTACCATTAGTCATATCAG -
-TTACTCCTATTACTAGCGCTCATTTATTATAAGTGTACATGGTAAATCAGTATAGTC -
-ATAAGCATTGATTAATATCATTATTGCTTCTACAGGCTTAATTATTAAATTATTCTGT -
-TATTCGTAACTAATTATAGTAATAACGAAGATGTCCGAAATTAAATAATTAAAGACA -
-AAGTGTGTCGGCATTATGCTTCTACCCATCTTATCCTTACCTATTGTTGTC -
-TTCACAGCAGCCGTAAATACAGAAAGTATGGTAGAGAAATAGGAATGGATAACAAACAG -
-GCAAGTTTGCCTGTTATATCATTAAAACGTAATAGATTGACATTGATTCTAATAA -
-CGTTCAAAACGCACAATATAGTAATTGCTTCCATTATCTAACTGTAAACTAAGATTATT -

FIG. 17B

- ATTGGATTTGTCACACTATTATCGCTGAAATACAATTGTTAACATAAGTACCTG -
- TAACCTAAAAACAGTGTGATAATATAGCGAACTTATGTTAACAAATTGTATTCATGGAC -

- TAGGATCGTACAGGTTACGCAAGAAAATGGTTGTTAGTCGATTAATCGATTGATT -
- ATCCTAGCATGTCCAAATGCGTTCTTTACCAAACAATATCAGCTAATTAGCTAAACTAA -

- CTAGATTGTTAACTAATTAAAGGAGGAATAACATATGGTTAACGCGTTGGAATTCGA -
- GATCTAAACAAAATTGATTAAATTCCCTCCTTATGTATACCAATTGCGCAACCTTAAGCT -

SacII

- GCTCACTAGTGTGACCTGCAGGGTACCATGGAAGCTTACTCGAGGATCCGC GGAAAGAA -
- CGAGTGATCACAGCTGGACGTCCCATGGTACCTTCAATGAGCTCCTAGGC GGCTTTCTT -

- GAAGAAGAAGAAGAAAGCCCCGAAAGGAAGCTGAGTTGGCTGCTGCCACCGCTGAGCAATA -
- CTTCTTCTTCTTCTTCGGGCTTCCTCGACTCAACCGACGACGGTGGCGACTCGTTAT -

- ACTAGCATAACCCCTTGGGGCCTCTAAACGGGTCTTGAGGGGTTTGCTGAAAGGAGG -
- TGATCGTATTGGGAACCCCGGAGATTGCCAGAACTCCCCAAAAACGACTTCCCTCC -

- AACCGCTCTCACGCTCTCACGC 3' [SacII sticky end]
- TTGGCGAGAAGTGCAGAGAAGTG 5' (position #5904 in pAMG21)

FIG.18A - 1

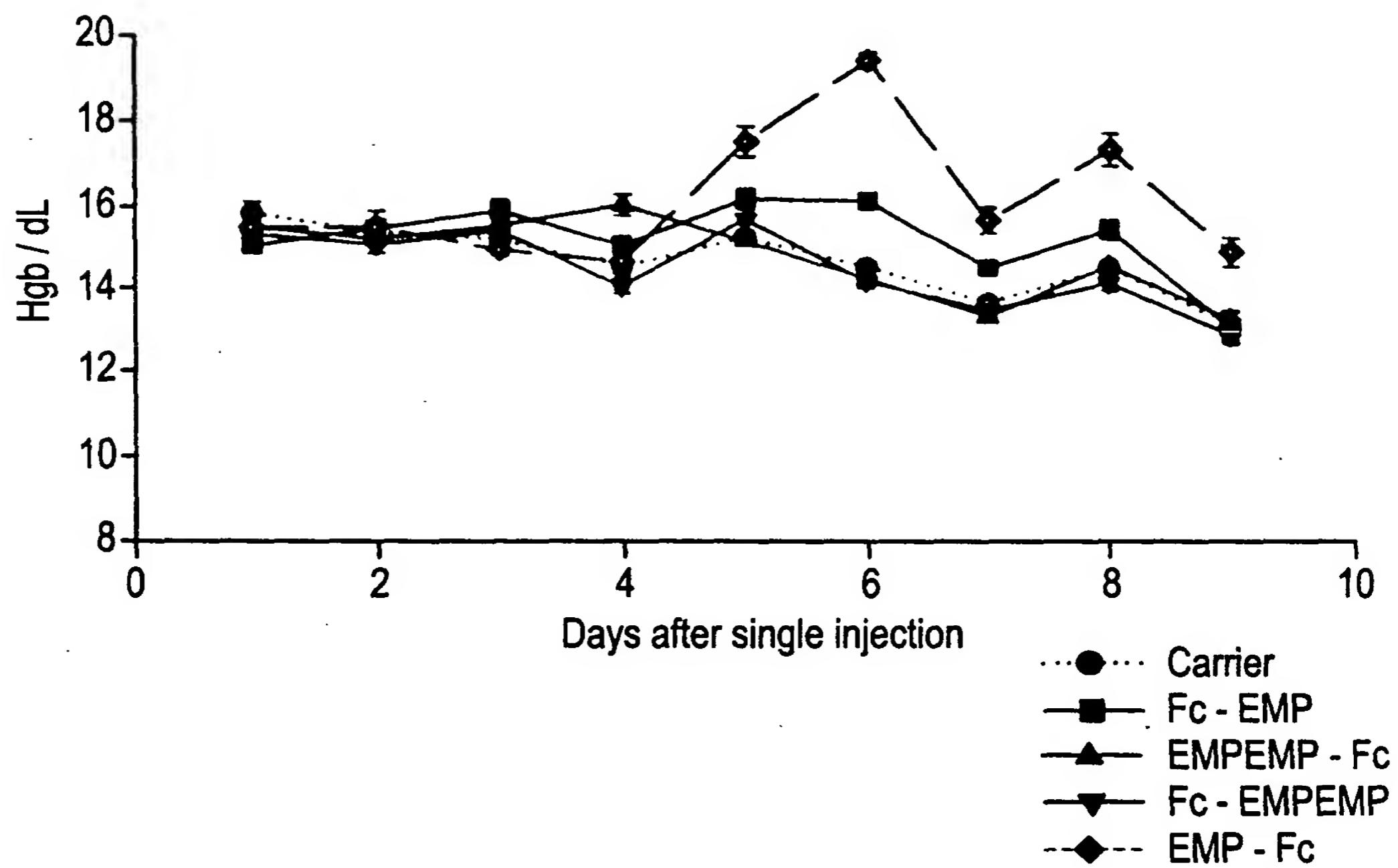


FIG.18A - 2

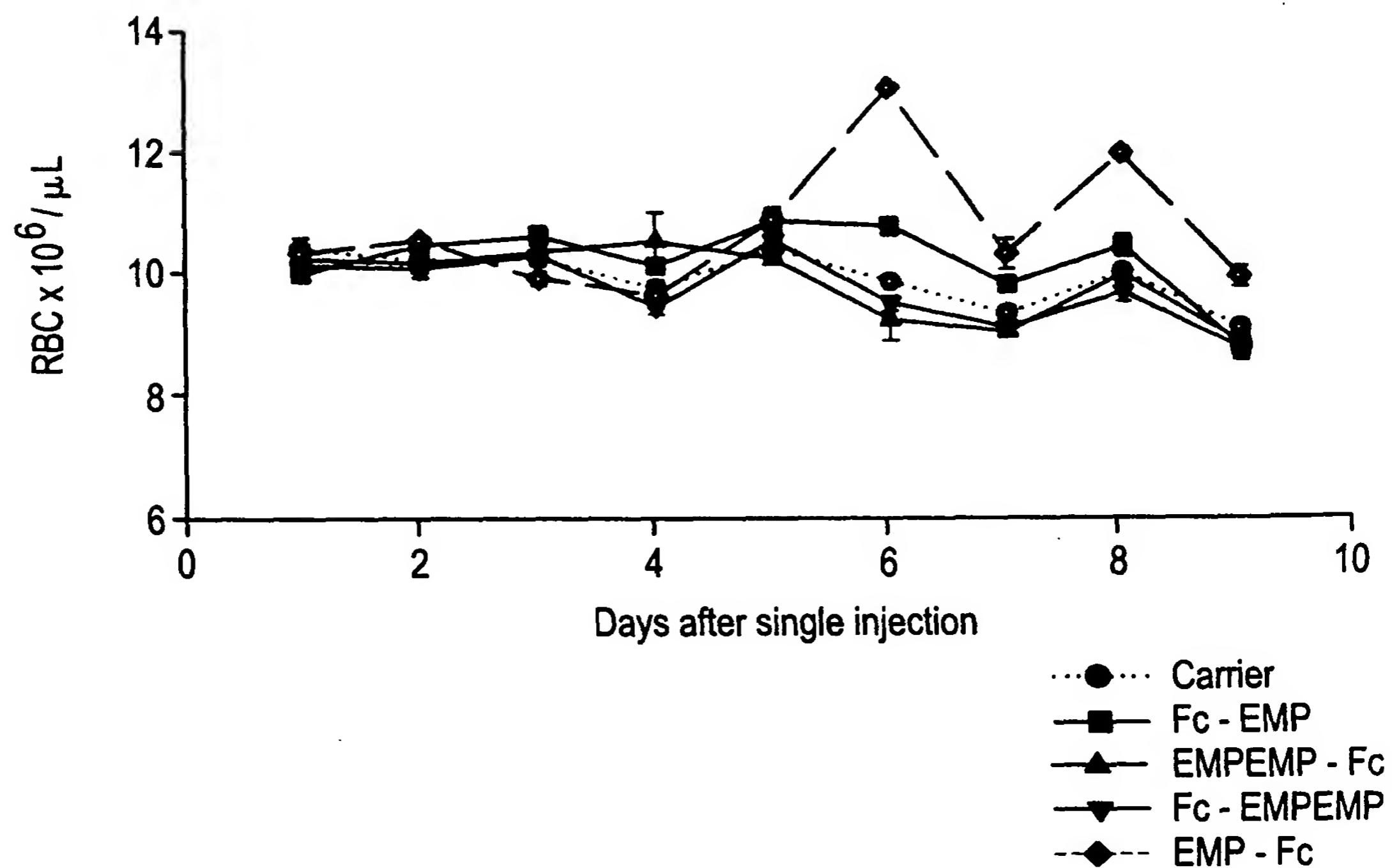


FIG.18A - 3

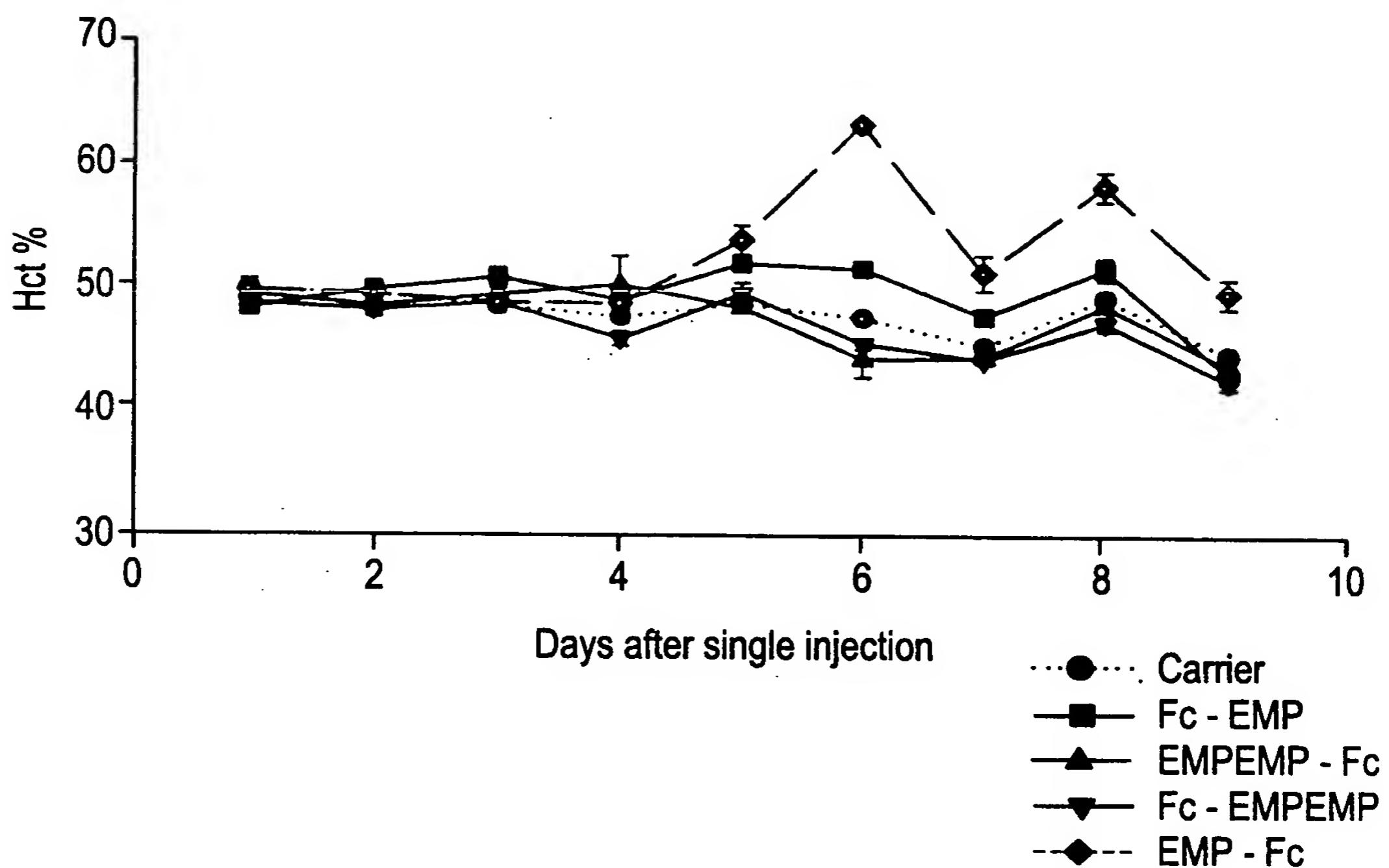


FIG.18B - 1

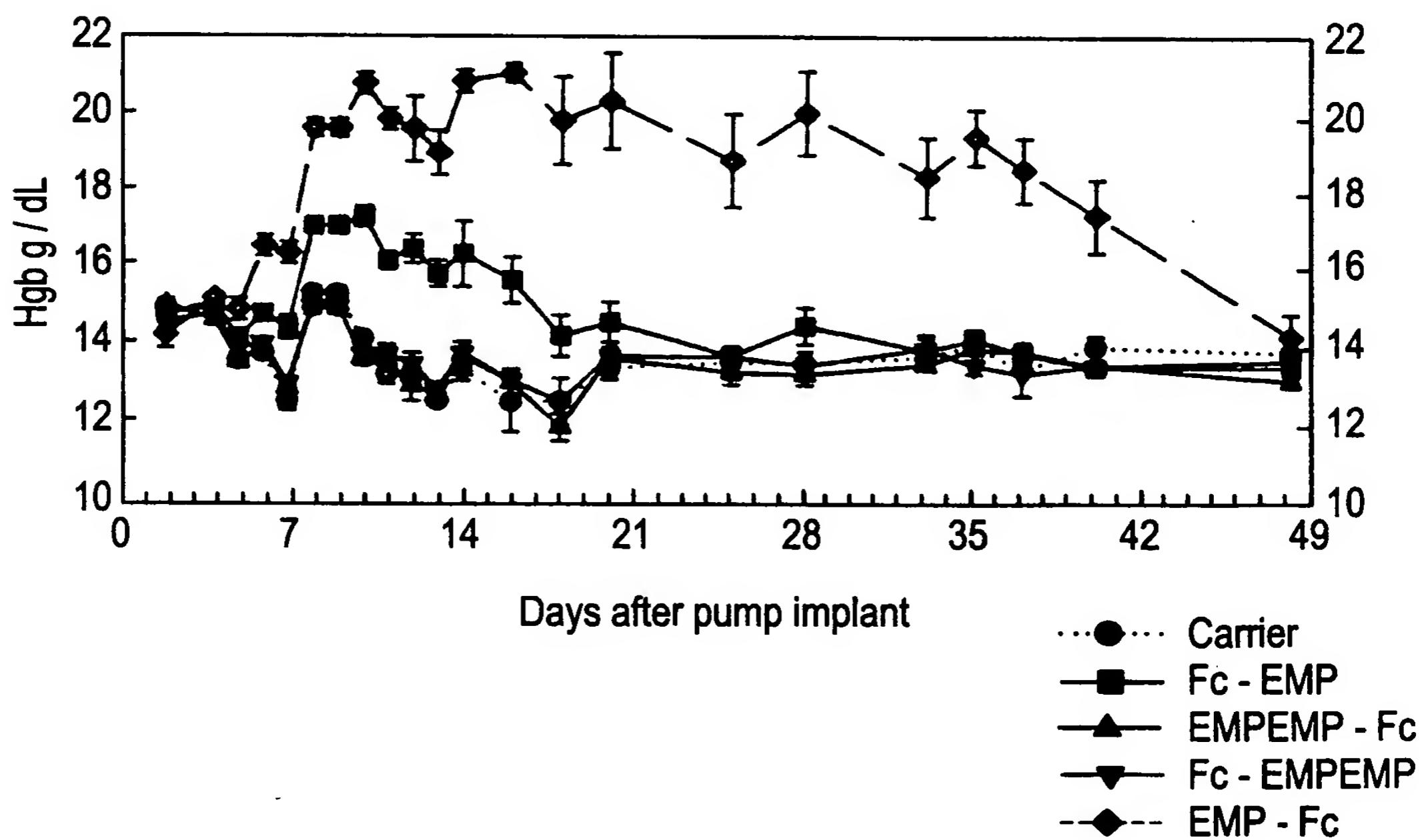


FIG. 18B - 2

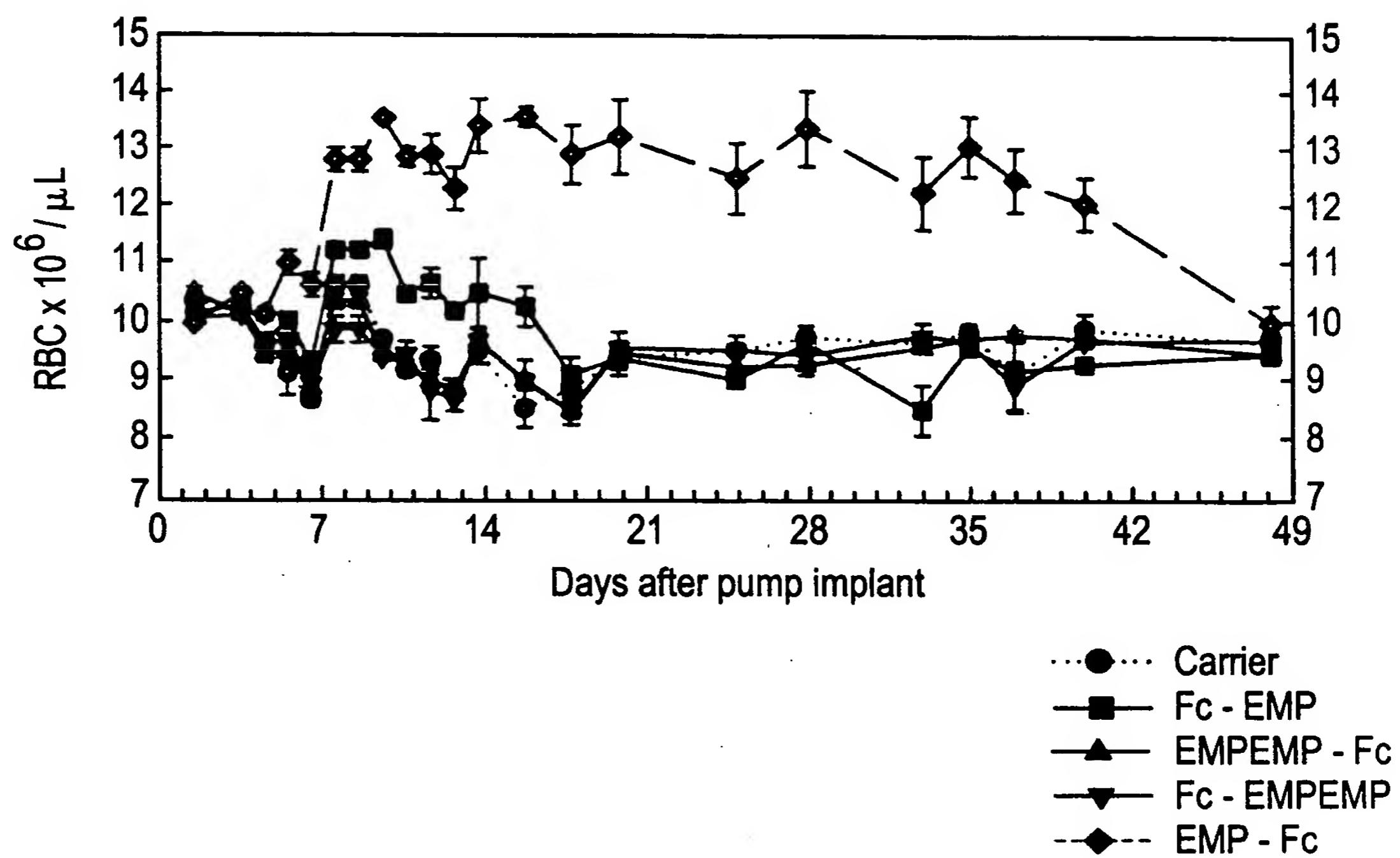


FIG. 18B - 3

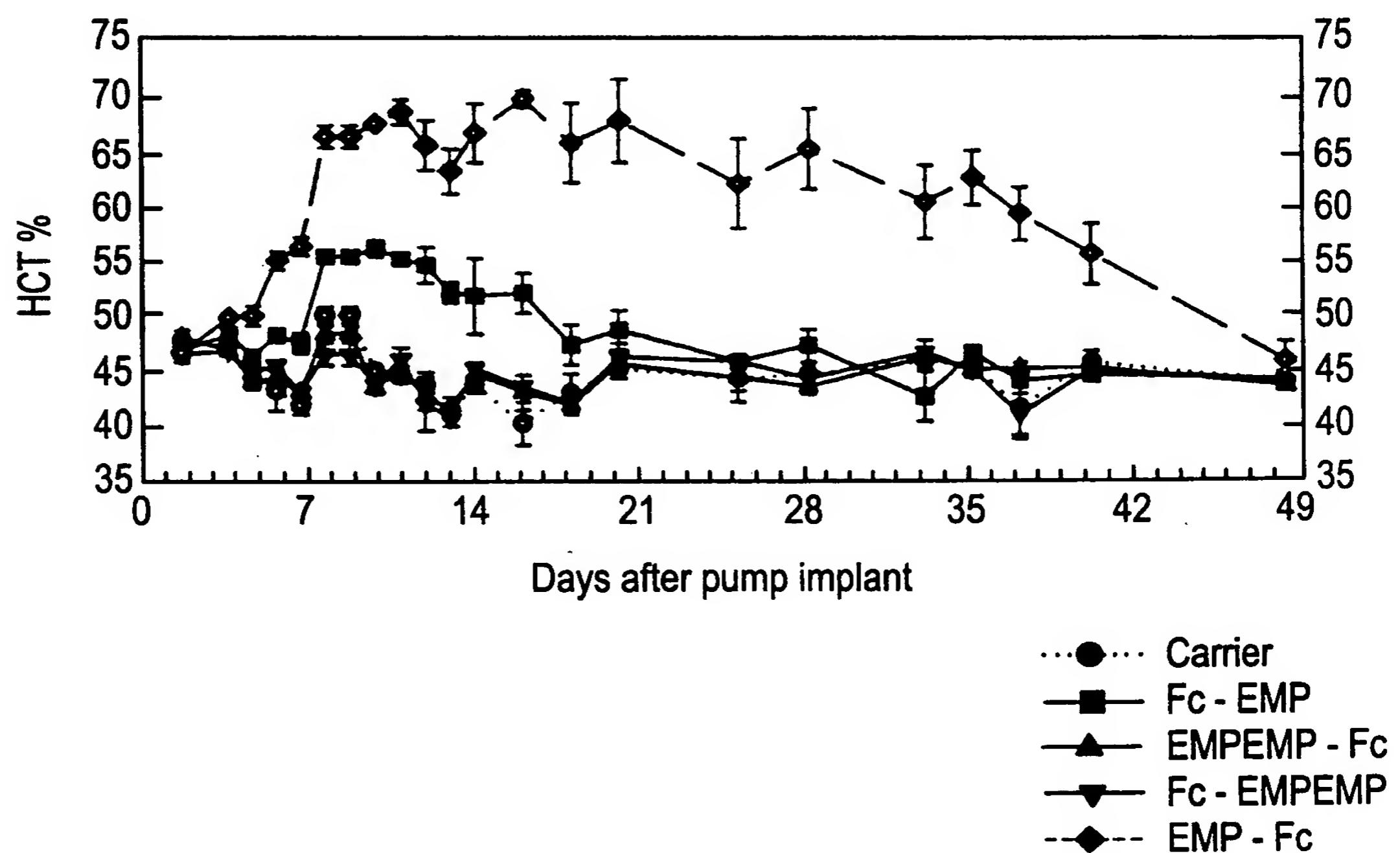


FIG. 19A

NdeI

1 CATATGGACAAAACACACATGTCCACCTTGTCCAGCTCCGGAACTCCTGGGGGGACCG 60

1 GTATACTGTTTGAGTGTGTACAGGTGGAACAGGTGAGGCCCTGAGGACCCCCCTGGC

a M D K T H T C P P C P A P E L L G G P -

61 TCAGTCTCCTCTTCCCCAAAACCCAAGGACACCCTCATGATCTCCGGACCCCTGAG 120

AGTCAGAAGGAGAAGGGGGTTTGGGTTCTGTGGGAGTACTAGAGGGCCTGGGACTC

a S V F L F P P K P K D T L M I S R T P E -

121 GTCACATGCGTGGTGGACGTGAGCCACGAAGACCCCTGAGGTCAAGTTCAACTGGTAC 180

CAGTGTACGCACCACCAACCTGCACCTGGTGCCTCTGGACTCCAGTTCAAGTTGACCATG

a V T C V V V D V S H E D P E V K F N W Y -

181 GTGGACGGCGTGGAGGTGCATAATGCCAAGACAAAGCCGCGGGAGGAGCAGTACAACAGC 240

CACCTGCCGCACCTCCACGTATTACGGTTCTGGCGCCCTCCTCGTCATGTTGTCG

a V D G V E V H N A K T K P R E E Q Y N S -

241 ACGTACCGTGTGGTCAGCGTCCTCACCGTCCTGCACCAAGGACTGGCTGAATGGCAAGGAG 300

TGCATGGCACACCAAGTCGCAGGAGTGGCAGGACGTGGCCTGACCGACTTACCGTTCTC

a T Y R V V S V L T V L H Q D W L N G K E -

301 TACAAGTCAAGGTCTCCAACAAAGCCCTCCAGCCCCATCGAGAAAACCATCTCCAAA 360

ATGTTCACGTTCCAGAGGTTGTTGGGAGGGTAGCTTTGGTAGAGGTTT

a Y K C K V S N K A L P A P I E K T I S K -

361 GCCAAAGGGCAGCCCCGAGAACACAGGTGTACACCCTGCCCGGGATGAGCTG 420

CGGTTCCCGTCGGGCTTGGTGTCCACATGTGGACGGGGTAGGGCCCTACTCGAC

a A K G Q P R E P Q V Y T L P P S R D E L -

421 ACCAAGAACCAAGGTCAGCCTGACCTGCCTGGTCAAAGGCTCTATCCCAGCGACATGCC 480

TGGTTCTGGTCCAGTCGGACTGGACGGACCAGTTCCGAAGATAGGGTCGCTGTAGCGG

a T K N Q V S L T C L V K G F Y P S D I A -

481 GTGGAGTGGGAGAGCAATGGCAGCCGGAGAACAACTACAAGACCAACGCCCTCCGTGCTG 540

CACCTCACCCCTCTCGTTACCGTCGGCCTCTGTTGATGTTCTGGTGCAGGGCACGAC

a V E W E S N G Q P E N N Y K T T P P V L -

541 GACTCCGACGGCTCCTCTTCTACAGCAAGCTCACCGTGGACAAGAGCAGGTGGCAG 600

CTGAGGCTGCCGAGGAAGAAGGAGATGTCGTTGAGTGGCACCTGTTCTCGTCCACCGTC

a D S D G S F F L Y S K L T V D K S R W Q -

FIG. 19B

601 CAGGGGAACGTCTCTCATGCTCCGTATGCATGAGGCTCTGCACAAACCACTACACGCAG
660 GTCCCCCTGCAGAAGAGTACGAGGCACACTACGTACTCCGAGACGTGTTGGTATGTGCGTC

a Q G N V F S C S V M H E A L H N H Y T Q -

661 AAGAGCCTCTCCCTGTCTCCGGTAAAGGTGGAGGTGGTGGTACTTCCTGCCGCACTAC
720 TTCTCGGAGAGGGACAGAGGCCATTCCACCTCCACCACCACTGAAGGACGGCGTGATG

a K S L S L S P G K G G G G G D F L P H Y -

BamHI

721 AAAAACACCTCTGGGTACCGTCCGTAATGGATCC
757 TTTTGAGAGACCCAGTGGCAGGCATTACCTAGG

a K N T S L G H R P *

FIG. 20A

NdeI
|
1 CATATGGACTTCCTGCCGCACTACAAAAACACCTCTGGGTACCGTCCGGTGGAGGC 60
GTATACTGAAGGACGGCGTGTGATTTGTGGAGAGACCCAGTGGCAGGCCACCTCCG
a M D F L P H Y K N T S L G H R P G G G -
61 GGTGGGGACAAAACCTCACACATGTCCACCTGCCAGCACCTGAACCTGGGGGACCG 120
CCACCCCTGTTGAGTGTGTACAGGTGGAACGGTCGTGGACTTGAGGACCCCCCTGGC
a G G D K T H T C P P C P A P E L L G G P -
121 TCAGTTTCCTCTTCCCCCAAAACCAAGGACACCTCATGATCTCCGGACCCCTGAG 180
AGTAAAAGGAGAAGGGGGTTTGGGTTCTGTGGAGTACTAGAGGCCTGGGACTC
a S V F L F P P K P K D T L M I S R T P E -
181 GTCACATGCGTGGTGGACGTGAGCCACGAAGACCCCTGAGGTCAAGTTCAACTGGTAC 240
CAGTGTACGCACCACCTGCACTCGGTGCTCTGGACTCCAGTTCAAGTTGACCATG
a V T C V V V D V S H E D P E V K F N W Y -
241 GTGGACGGCGTGGAGGTGCATAATGCCAAGACAAAGCCGGAGGAGCAGTACAACAGC 300
CACCTGCCGCACCTCCACGTATTACGGTTCTGGCGCCCTCGTCATGTTGTCG
a V D G V E V H N A K T K P R E E Q Y N S -
301 ACGTACCGTGTGGTCAGCGTCCTCACCGTCTGCACCAAGGACTGGCTGAATGGCAAGGAG 360
TGCATGGCACACCAGTCGAGGAGTGGCAGGACGTGGCCTGACCGACTTACCGTTCTC
a T Y R V V S V L T V L H Q D W L N G K E -
361 TACAAGTGCAAGGTCTCCAACAAAGCCCTCCAGCCCCATCGAGAAAACCATCTCCAAA 420
ATGTTCACGTTCCAGAGGTTGGGGAGGGTAGCTCTTGGTAGAGGTTT
a Y K C K V S N K A L P A P I E K T I S K -
421 GCCAAAGGGCAGCCCCGAGAACACAGGTGTACACCCCTGCCCATCCGGATGAGCTG 480
CGGTTCCCGTGGGCTCTGGTGTCCACATGTGGACGGGGTAGGGCCCTACTCGAC
a A K G Q P R E P Q V Y T L P P S R D E L -
481 ACCAAGAACCAAGGTCAAGCCTGACCTGCCTGGTCAAAGGCTCTATCCCAGCGACATGCC 540
TGGTTCTGGTCCAGTCGGACTGGACGGACCAAGTTCCGAAGATAGGGTCGCTGTAGCGG
a T K N Q V S L T C L V K G F Y P S D I A -
541 GTGGAGTGGGAGAGCAATGGGCAGCCGGAGAACAACTACAAGACCACGCCCTCCGTGCTG 600
CACCTCACCCCTCTCGTTACCCGTGGCCTCTGTTGATGTTCTGGTGCAGGGCACGAC
a V E W E S N G Q P E N N Y K T T P P V L -

FIG. 20B

601 GACTCCGACGGCTCCTTCTTCTACAGCAAGCTACCGTGGACAAGAGCAGGTGGCAG 660
CTGAGGCTGCCGAGGAAGAAGGAGATGTCGTTGAGTGGCACCTGTTCTCGTCCACCGTC

a D S D G S F F L Y S K L T V D K S R W Q .

661 CAGGGGAACGTCTTCTCATGCTCCGTATGCATGAGGCTCTGCACAACCACTACACGCAG 720
GTCCCCCTTGCAGAAGAGTACGAGGCACTACGTACTCCGAGACGTGTTGGTATGTGCGTC

a Q G N V F S C S V M H E A L H N H Y T Q .

721 AAGAGCCTCTCCCTGTCTCCGGTAAATAATGGATCCGCAG 761
TTCTCGGAGAGGGACAGAGGCCATTATTACCTAGGCC

a K S L S L S P G K *

BamHI

FIG. 21A

NdeI
|
CATATGGACAAA
1 ACTCACACATGTCCACCTTGTCCAGCTCCGGAACTCCTGGGGGACCG
GTATACTGTTTGAGTGTGTACAGGTGGAACAGGTGAGGCCTGAGGACCCCCCTGGC 60

a M D K T H T C P P C P A P E L L L G G P -
TCAGTCTCCTCTTCCCCAAA
61 ACCCAAGGACACCCTCATGATCTCCGGACCCCTGAG
AGTCAGAAGGAGAAGGGGGTTTGGGTTCTGTGGAGTACTAGAGGCCTGGGACTC 120

a S V F L F P P K P K D T L M I S R T P E -
GTCACATGCGTGGTGGACGTGAGCCACGAAGACCCCTGAGGTCAAGTTCAACTGGTAC
121 CAGTGTACGCACCACCTGCACTCGGTGCTTCTGGACTCCAGTTCAAGTTGACCATG 180

a V T C V V V D V S H E D P E V K F N W Y -
GTGGACGGCGTGGAGGTGCATAATGCCAAGACAAAGCCGGGGAGGAGCAGTACAACAGC
181 CACCTGCCGCACCTCCACGTATTACGGTTCTGTTGGCGCCCTCGTCATGTTGTCG 240

a V D G V E V H N A K T K P R E E Q Y N S -
ACGTACCGTGTGGTCAGCGTCCTCACCGTCCTGCACCAGGACTGGCTGAATGGCAAGGAG
241 TGCATGGCACACCAGTCGAGGAGTGGCAGGACGTGGCCTGACCGACTTACCGTTCCTC 300

a T Y R V V S V L T V L H Q D W L N G K E -
TACAAGTGCAAGGTCTCCAACAAAGCCCTCCAGCCCCATCGAGAAAACCATCTCCAAA
301 ATGTTCACGTTCCAGAGGTTCTGGGAGGGTAGCTCTTGGTAGAGGTT 360

a Y K C K V S N K A L P A P I E K T I S K -
GCCAAAGGGCAGCCCCGAGAACACAGGTGTACACCCTGCCCATCCGGATGAGCTG
361 CGGTTCCCGTCGGGCTCTGGTGTCCACATGTGGGACGGGGTAGGGCCCTACTCGAC 420

a A K G Q P R E P Q V Y T L P P S R D E L -
ACCAAGAACCAAGGTCAGCCTGACCTGCCTGGTCAAAGGCTCTATCCCAGCGACATGCC
421 TGGTTCTGGTCCAGTCGGACTGGACGGACCAGTTCCGAAGATAGGGTCGCTGTAGCGG 480

a T K N Q V S L T C L V K G F Y P S D I A -
GTGGAGTGGGAGAGCAATGGCAGCCGGAGAACAACTACAAGACCACGCCCTCCGTGCTG
481 CACCTCACCTCTCGTTACCCGTCGGCCTCTGGTGTGATGTTCTGGTGCAGGGCACGAC 540

a V E W E S N G Q P E N N Y K T T P P V L -
GAECTCCGACGGCTCCTTCTTCTACAGCAAGCTCACCGTGGACAAGAGCAGGTGGCAG
541 CTGAGGCTGCCGAGGAAGAAGGAGATGTCGTTGAGTGGCACCTGTTCTCGTCCACCGTC 600

a D S D G S F F L Y S K L T V D K S R W Q -

FIG. 21B

601 CAGGGGAACGTCTTCTCATGCTCCGTATGCATGAGGCTCTGCACAACCACTACACGCAG
660
GTCCCCCTGCAGAAGAGTACGAGGCACTACGTACTCCGAGACGTGTTGGTATGTGCGTC

a Q G N V F S C S V M H E A L H N H Y T Q -

661 AAGAGCCTCTCCCTGTCTCCGGTAAAGGTGGAGGTGGTGGTTCGAATGGACCCGGT
720
TTCTCGGAGAGGGACAGAGGCCATTCCACCTCCACCAAGCTTACCTGGGCCA

a K S L S L S P G K G G G G G F E W T P G -

BamHI
|
721 TACTGGCAGCCGTACGCTCTGCCGCTGTAATGGATCCCTCGAG
763
ATGACCGTCGGCATGCGAGACGGCGACATTACCTAGGGAGCTC

a Y W Q P Y A L P L *

FIG. 22A

NdeI

1 CATATGTTCGAATGGACCCCGGGTTACTGGCAGCCGTACGCTCTGCCGCTGGTGGAGGC
1 GTATACAAGCTTACCTGGGGCCAATGACCGTCGGCATGCGAGACGGGACCCACCTCCG 60

a M F E W T P G Y W Q P Y A L P L G G G -

61 GGTGGGGACAAAACACACATGTCCACCTGCCAGCACCTGAACCTCCTGGGGGACCG
61 CCACCCCTGTTTGAGTGTACAGGTGGAACGGTCGTGGACTTGAGGACCCCTGGC 120

a G G D K T H T C P P C P A P E L L G G P -

121 TCAGTTTCCTCTTCCCCAAAACCCAAGGACACCCCTCATGATCTCCGGACCCCTGAG
121 AGTAAAAGGAGAAGGGGGTTTGGGTTCTGTGGAGTACTAGAGGCCTGGGACTC 180

a S V F L F P P K P K D T L M I S R T P E -

181 GTCACATGCGTGGTGGACGTGAGCCACGAAGACCCCTGAGGTCAAGTTCAACTGGTAC
181 CAGTGTACGCACCACCTGCACCGTGCCTCTGGGACTCCAGTTCAAGTTGACCATG 240

a V T C V V V D V S H E D P E V K F N W Y -

241 GTGGACGGCGTGGAGGTGCATAATGCCAAGACAAAGCCGGAGGAGCAGTACAACAGC
241 CACCTGCCGCACCTCCACGTATTACGGTTCTGGCGCCCTCCTCGTCATGTTGTCG 300

a V D G V E V H N A K T K P R E E Q Y N S -

301 ACGTACCGTGTGGTCAGCGTCCTCACCGTCTGCACCAAGGACTGGCTGAATGGCAAGGAG
301 TGCATGGCACACCAAGTCGCAGGAGTGGCAGGACGTGGCCTGACCGACTTACCGTTCTC 360

a T Y R V V S V L T V L H Q D W L N G K E -

361 TACAAGTGCAAGGTCTCCAACAAAGCCCTCCAGCCCCATCGAGAAAACATCTCCAAA
361 ATGTTCACGTTCCAGAGGTTGTTGGAGGGTCGGGGTAGCTCTTTGGTAGAGGTTT 420

a Y K C K V S N K A L P A P I E K T I S K -

421 GCCAAAGGGCAGCCCCGAGAACCAACAGGTGTACACCCCTGCCCATCCGGATGAGCTG
421 CGGTTTCCCGTCGGGCTTTGGTGTCCACATGTGGGACGGGGTAGGGCCCTACTCGAC 480

a A K G Q P R E P Q V Y T L P P S R D E L -

481 ACCAAGAACCAAGGTCAACCTGACCTGCCTGGTCAAAGGCTCTATCCAGCGACATGCC
481 TGGTTCTGGTCCAGTCGGACTGGACGGACCAGTTCCGAAGATAGGGTCGTAGCGG 540

a T K N Q V S L T C L V K G F Y P S D I A -

541 GTGGAGTGGAGAGCAATGGCAGCCGGAGAACAAACTACAAGACCAACGCCCTCCGTGCTG
541 CACCTCACCCCTCTCGTTACCCGTCGGCCTTTGTTGATGTTCTGGTGGAGGGACGAC 600

a V E W E S N G Q P E N N Y K T T P P V L -

FIG. 22B

601 GACTCCGACGGCTCCTCTTCTACAGCAAGCTCACCGTGGACAAGAGCAGGTGGCAG
660
CTGAGGCTGCCGAGGAAGAAGGAGATGTCGTTGAGTGGCACCTGTTCTCGTCCACCGTC
a D S D G S F F L Y S K L T V D K S R W Q -
661 CAGGGGAACGTCTTCTCATGCTCCGTGATGCATGAGGCTCTGCACAAACCACTACACGCAG
720
GTCCCCTTGCAGAAGAGTACGAGGCACTACGTACTCCGAGACGTGTTGGTATGTGCGTC
a Q G N V F S C S V M H E A L H N H Y T Q -
BamHI
721 AAGAGCCTCTCCCTGTCTCCGGTAAATAATGGATCC
757
TTCTCGGAGAGGGACAGAGGCCATTATTACCTAGG
a K S L S L S P G K *

FIG. 23A

NdeI
|
CATATGGACAAA
1 ACTCACACATGTCCACCGTGC
GTATACTGTTGAGTGT
60 ACAGGTGGCACGGGTC
CTGGACTTGAGGAC
CCCCCTGGC
a M D K T H T C P P C P A P E L L G G P -
TCAGTTTCCTCTTCCCC
61 AAAACCCAAGGACAC
CTCATGATCTCCGGAC
CCCTGAG
AGTAAAAGGAGAAGGGGG
120 TTTGGGTC
CTGTGGAGTACTAGAGGC
CTGGGACTC
a S V F L F P P K P K D T L M I S R T P E -
GTCACATGCGTGGTGG
121 AC
GAGCTGAGCCAC
GAAGACCC
TGAGGTCAAGT
TCAACTGGTAC
CAGTGTACGC
ACCAC
ACTCGGTGCT
CTGGACTCC
AGTTCAAGT
TGACCATG
a V T C V V V D V S H E D P E V K F N W Y -
GTGGACGGCGTGGAG
181 GTGCATAATGCC
AAGACAAAGCC
GC
GGAGGAGCAGTACA
ACAGC
CACCTGCC
GACCTCC
ACGTATTACGG
TTCTGG
ACTCC
AGTTCAAGT
TGACCATG
a V D G V E V H N A K T K P R E E Q Y N S -
ACGTACCGTGTGG
241 TCAGCGT
CCTCACCGT
CCTGC
ACCGACTGG
CTGA
ATGGCAAGGAG
TGCATGG
CACACC
AGTC
GCAGGAGT
GGCAGG
ACGTGG
CCTGAC
CCGACTTAC
CGTTCTC
a T Y R V V S V L T V L H Q D W L N G K E -
TACAAGTG
CAAGGT
CTCCA
ACAAAG
CCCTCC
AGCCCC
ATCG
AGAAA
ACC
ATCT
CCAAA
301 ATGTT
CACG
TCC
AGAG
TTG
TTCTGG
GGAG
GGT
AGCT
CTTTGG
TAGAG
GTTT
a Y K C K V S N K A L P A P I E K T I S K -
GCCAAAGGG
361 CAG
CCCC
GAG
AAC
CAC
AGGT
GTAC
ACCC
CTGCC
CCCC
AT
CCC
GGG
AT
GAG
CTG
CGGTT
CCC
GT
GGGG
CT
TTGG
GT
CCAC
AT
GT
GGG
AC
GGGG
GT
AGGG
CC
CT
ACT
CGAC
a A K G Q P R E P Q V Y T L P P S R D E L -
ACCAAG
421 GAACC
CAG
GT
CAG
CCT
GAC
CT
GC
CT
GG
TCAA
AGG
CT
TAT
CCC
AG
CG
AC
AT
CG
CC
TGG
TT
GG
TCC
AG
TC
GG
ACT
GG
AC
GG
ACC
AG
TT
CC
GA
AG
AT
AGGG
TC
GCT
GT
AG
CG
a T K N Q V S L T C L V K G F Y P S D I A -
GTGGAG
481 GTGGAG
GAG
GAG
CAAT
GGG
CAG
CCGG
AGA
ACA
ACT
ACA
AG
ACC
AC
GC
CT
CCC
GT
GT
CAC
CT
ACC
CT
CT
CG
TT
AC
CC
GT
CG
CT
CT
GG
TGT
G
AT
GT
T
CT
GG
GT
CG
GG
AG
GG
CA
CG
AC
G
AC
G
a V E W E S N G Q P E N N N Y K T T P P V L -
GACTCC
541 GAC
GG
GT
CCT
TT
CT
CT
AC
AG
CA
AG
CT
AC
CG
TG
GG
AC
AA
AG
AG
G
C
AG
GT
GG
CA
CT
GT
CC
AC
CG
TC
a D S D G S F F L Y S K L T V D K S R W Q -

FIG. 23B

601 CAGGGGAACGTCTTCTCATGCTCCGTATGCATGAGGCTCTGCACAACCACTACACGCAG
660 GTCCCCCTTGAGAAGAGTACGAGGCACTACGTACTCCGAGACGTGTTGGTATGTGCGTC
a Q G N V F S C S V M H E A L H N H Y T Q -
661 AAGAGCCTCTCCCTGTCCTCCGGTAAAGGTGGTGGTGGTGAACCGAACTGTGAC
720 TTCTCGGAGAGGGACAGAGGCCATTCCACCACCACCAACTGGCTTGACACTG
a K S L S L S P G K G G G G G V E P N C D -
BamHI
721 ATCCATGTTATGTGGGAATGGGAATGTTTGAACGTCTGTAACTCGAGGATCC
773 TAGGTACAATAACACCCTTACCCCTTACAAAACTTGCAGACATTGAGCTCCTAGG
a I H V M W E W E C F E R L *

FIG. 24A

NdeI

1 CATATGGTTGAACCGAACTGTGACATCCATGTTATGTGGGAATGGGAATGTTTGAAACGT 60

1 GTATAACCAACTTGGCTTGACACTGTAGGTACAATAACACCCTTACCCCTACAAAACCTGCA

a M V E P N C D I H V M W E W E C F E R -

61 CTGGGTGGTGGTGGTGGTGGTGGACAAAACACACATGTCCACCGTGCCAGCACCTGAACTC 120

GACCCACCACCAACCACCACTGTTGAGTGTACAGGTGGCACGGTCGTGGACTTGAG

a L G G G G D K T H T C P P C P A P E L -

121 CTGGGGGGACCGTCAGTTCTCTTCCCCCAAAACCCAAAGGACACCCCTCATGATCTCC 180

GACCCCCCTGGCAGTCAAAAGGAGAAGGGGGTTTGGGTTCTGTGGGAGTACTAGAGG

a L G G P S V F L F P P K P K D T L M I S -

181 CGGACCCCTGAGGTACATGCGTGGTGGACGTGAGCCACGAAGACCCCTGAGGTCAAG 240

GCCTGGGGACTCCAGTGTACGCACCACCTGCACTCGGTGCTCTGGACTCCAGTT

a R T P E V T C V V V D V S H E D P E V K -

241 TTCAACTGGTACGTGGACGGCGTGGAGGTGCATAATGCCAAGACAAAGCCGGAGGAG 300

AAGTTGACCATGCACCTGCCGCACCTCACGTATTACGGTTCTGTTGGCGCCCTCCTC

a F N W Y V D G V E V H N A K T K P R E E -

301 CAGTACAACAGCACGTACCGTGTGGTCAGCGTCCTCACCGTCCTGCACCAGGACTGGCTG 360

GTCATGTTGTCGTGCATGGCACACCAGTCGCAGGAGTGGCAGGACGTGGCCTGACCGAC

a Q Y N S T Y R V V S V L T V L H Q D W L -

361 AATGGCAAGGAGTACAAGTGCAGGGTCTCCAACAAAGCCCTCCCAGCCCCATCGAGAAA 420

TTACCGTTCTCATGTTCACGGTCCAGAGGTTGTTGGGAGGGTGGGGTAGCTCTT

a N G K E Y K C K V S N K A L P A P I E K -

421 ACCATCTCAAAGCCAAAGGGCAGCCCCGAGAACACAGGTGTACACCCCTGCCCATCC 480

TGGTAGAGGTTTCGGTTCCCGTCGGGCTCTGGTGTCCACATGTGGACGGGGTAGGG

a T I S K A K G Q P R E P Q V Y T L P P S -

481 CGGGATGAGCTGACCAAGAACCAAGGTCAAGCCTGACCTGCCCTGGTCAAAGGCTTCTATCCC 540

GCCCTACTCGACTGGTTCTGGTCCAGTCGGACTGGACGGACCAAGTTCCGAAGATAGGG

a R D E L T K N Q V S L T C L V K G F Y P -

541 AGCGACATCGCCGTGGAGTGGGAGAGCAATGGCAGCCGGAGAACAACTACAAGACCACG 600

TCGCTGTAGCGGCACCTCACCCCTCTCGTTACCCGTGGCCTCTGTTGATGTTCTGGTGC

a S D I A V E W E S N G Q P E N N Y K T T -

FIG. 24B

601 CCTCCCGTGGACTCCGACGGCTCCTCTCCTCTACAGCAAGCTCACCGTGGACAAG 660
GGAGGGCACGACCTGAGGCTGCCGAGGAAGAAGGAGATGTCGTTGAGTGGCACCTGTT
a P P V L D S D G S F F L Y S K L T V D K -
661 AGCAGGTGGCAGCAGGGAACGTCTTCTCATGCTCCGTGATGCATGAGGCTCTGCACAAAC 720
TCGTCCACCGTCGTCCCTTGAGAAGAGTACGAGGCACGTACTCCGAGACGTGTTG
a S R W Q Q G N V F S C S V M H E A L H N -
BamHI
|
721 CACTACACGCAGAAGAGCCTCTCCCTGTCTCCGGTAAATAACTCGAGGATCC 773
GTGATGTGCGTCTCTCGGAGAGGGACAGAGGCCATTATTGAGCTCCTAGG
a H Y T Q K S L S L S P G K *

FIG. 25A

NdeI

1 CATATGGACAAA
1 ACTCACACATGTCCACCTGTCCAGCTCCGGAACTCCTGGGGGACCG
1 GTATACCTGTTGAGTGTACAGGTGGAACAGGTGAGGCCTTGAGGACCCCCCTGGC 60

a M D K T H T C P P C P A P E L L G G P -

61 TCAGTCTTCCTCTTCCCCAAA
61 ACCCAAGGACACCCCTCATGATCTCCGGACCCCTGAG
61 AGTCAGAAGGAGAAGGGGGTTTGGGTTCTGTGGGAGTACTAGAGGCCTGGGACTC 120

a S V F L F P P K P K D T L M I S R T P E -

121 GTCACATGCGTGGTGGACGTGAGCCACGAAGACCCCTGAGGTCAAGTTCAACTGGTAC
121 CAGTGTACGCACCACCTGCACTCGTGCTTCTGGGACTCCAGTTCAAGTTGACCATG 180

a V T C V V V D V S H E D P E V K F N W Y -

181 GTGGACGGCGTGGAGGTGCATAATGCCAAGACAAAGCCGGAGGAGCAGTACAACAGC
181 CACCTGCCGCACCTCCACGTATTACGGTTCTGGCGCCCTCGTCATGTTGTCG 240

a V D G V E V H N A K T K P R E E Q Y N S -

241 ACGTACCGTGTGGTCAGCGTCCTCACCGTCTGCACCAAGGACTGGCTGAATGGCAAGGAG
241 TGCATGGCACACCAGTCGCAGGAGTGGCAGGACGTGGCCTGACCGACTTACCGTTCTC 300

a T Y R V V S V L T V L H Q D W L N G K E -

301 TACAAGTGCAAGGTCTCAACAAAGCCCTCCAGCCCCATCGAGAAAACCATCTCCAAA
301 ATGTTCACGTTCCAGAGGTTGTTGGGAGGGTAGCTCTTGGTAGAGGTTT 360

a Y K C K V S N K A L P A P I E K T I S K -

361 GCCAAAGGGCAGCCCCGAGAACCAAGGTGTACACCCCTGCCCGGATGAGCTG
361 CGGTTTCCCGTCGGGCTCTGGTGTCCACATGTGGGACGGGGTAGGGCCCTACTCGAC 420

a A K G Q P R E P Q V Y T L P P S R D E L -

421 ACCAAGAACCAAGGTCAGCCTGACCTGCCTGGTCAAAGGCTCTATCCCAGCGACATGCC
421 TGGTTCTGGTCCAGTCGGACTGGACGGACCAGTTCCGAAGATAGGGTCGCTGTAGCGG 480

a T K N Q V S L T C L V K G F Y P S D I A -

481 GTGGAGTGGGAGAGCAATGGCAGCCGGAGAACAACTACAAGACCAAGCCTCCGTGCTG
481 CACCTCACCCCTCGTTACCGTCGGCCTTGTGATGTTCTGGTGCAGGGACAGAC 540

a V E W E S N G Q P E N N Y K T T P P V L -

541 GACTCCGACGGCTCCTCTTCTACAGCAAGCTCACCGTGGACAAGAGCAGGTGGCAG
541 CTGAGGCTGCCGAGGAAGAAGGAGATGTCGTTGAGTGGCACCTGTTCTCGTCCACCGTC 600

a D S D G S F F L Y S K L T V D K S R W Q -

FIG. 25B

601 CAGGGGAACGTCTTCTCATGCTCCGTGATGCATGAGGCTCTGCACAACCACTACACGCAG
660 GTCCCCCTTGCAGAAGAGTACGAGGCACACTACGTACTCCGAGACGTGTTGGTGTGCGTC
a Q G N V F S C S V M H E A L H N H Y T Q -
661 AAGAGCCTCTCCCTGTCTCCGGTAAAGGTGGAGGTGGTGGTGCACCAACCCACTGGGT
720 TTCTCGGAGAGGGACAGAGGCCATTCCACCTCCACCAACGTGGTGGTGACCCCA
A K S L S L S P G K G G G G G C T T H W G -
BamHI
|
721 TTCACCCCTGTGCTAATGGATCCCTCGAG 748
AAGTGGGACACGATTACCTAGGGAGCTC
a F T L C *

FIG. 26A

NdeI
|
CATATGTGCACCACCCACTGGGGTTCACCCGTGCGGTGGAGGCGGTGGGGACAAAGGT
1+-----+-----+-----+-----+-----+-----+-----+-----+ 60
GTATACACGTGGTGGGTGACCCCAAAGTGGGACACGCCACCTCCGCCACCCCTGTTCCA
a M C T T H W G F T L C G G G G G D K G -
GGAGGCGGTGGGGACAAAACATCACACATGTCCACCTGCCAGCACCTGAACCTGGGG
61+-----+-----+-----+-----+-----+-----+-----+-----+ 120
CCTCCGCCACCCCTGTTTGAGTGTACAGGTGGAACGGGTCGTGGACTTGAGGACCC
a G G G G D K T H T C P P C P A P E L L G -
GGACCGTCAGTTCTCTTCCCCAAAACCCAAAGGACACCCCTCATGATCTCCGGACC
121+-----+-----+-----+-----+-----+-----+-----+-----+ 180
CCTGGCAGTAAAAGGAGAAGGGGGTTTGGGTCCTGTGGAGTACTAGAGGGCCTGG
a G P S V F L F P P K P K D T L M I S R T -
CCTGAGGTCACATGCGTGGTGGACGTGAGCCACGAAGACCCCTGAGGTCAAGTTAAC
181+-----+-----+-----+-----+-----+-----+-----+-----+ 240
GGACTCCAGTGTACGCACCACACCTGCACTCGGTCTCTGGACTCCAGTTCAAGTTG
a P E V T C V V V D V S H E D P E V K F N -
TGGTACGTGGACGGCGTGGAGGTGCATAATGCCAAGACAAAGCCGGAGGAGCAGTAC
241+-----+-----+-----+-----+-----+-----+-----+-----+ 300
ACCATGCACCTGCCGCACCTCCACGTATTACGGTTCTGGCCTCGTCATG
a W Y V D G V E V H N A K T K P R E E Q Y -
AACAGCACGTACCGTGTGGTCAGCGCCTCACCGTCTGCACCAAGGACTGGCTGAATGGC
301+-----+-----+-----+-----+-----+-----+-----+-----+ 360
TTGTCGTGCATGGCACACCAAGTCGCAGGAGTGGCAGGACGTGGCCTGACCGACTTACCG
a N S T Y R V V S V L T V L H Q D W L N G -
AAGGAGTACAAGTCAAGGTCTCCAACAAAGCCCTCCCAGCCCCATCGAGAAAACCATC
361+-----+-----+-----+-----+-----+-----+-----+-----+ 420
TTCCTCATGTTACGTTCCAGAGGTGTTGGGAGGGTCGGGGTAGCTCTTTGGTAG
a K E Y K C K V S N K A L P A P I E K T I -
TCCAAAGCAAAGGGCAGCCCCGAGAACACAGGTGTACACCCCTGCCCATCCGGGAT
421+-----+-----+-----+-----+-----+-----+-----+-----+ 480
AGGTTTCGGTTTCCCGTCGGGCTCTGGTGTCCACATGTGGGACGGGGTAGGGCCCTA
a S K A K G Q P R E P Q V Y T L P P S R D -
GAGCTGACCAAGAACCAAGGTCAGCCTGACCTGCCTGGTCAAAGGCTCTATCCCAGCGAC
481+-----+-----+-----+-----+-----+-----+-----+-----+ 540
CTCGACTGGTCTTGGTCCAGTCGGACTGGACGGACCAGTTCCGAAGATAGGGTCGCTG
a E L T K N Q V S L T C L V K G F Y P S D -
ATCGCCGTGGAGTGGGAGAGCAATGGGCAGCCGGAGAACAACTACAAGACCACGCCCTCCC
541+-----+-----+-----+-----+-----+-----+-----+-----+ 600
TAGCGGCACCTCACCCCTCTCGTTACCGTCGGCCTCTGTTGATGTTCTGGTGGAGGG
a I A V E W E S N G Q P E N N Y K T T P P -

FIG. 26B

601 GTGCTGGACTCCGACGGCTCCTTCTTCTACAGCAAGCTCACCGTGGACAAGAGCAGG
660 CACGACCTGAGGCTGCCGAGGAAGAAGGAGATGTCGTTGAGTGGCACCTGTTCTCGTCC
a V L D S D G S F F L Y S K L T V D K S R -
661 TGGCAGCAGGGAACGTCTTCTCATGCTCCGTGATGCATGAGGCTCTGCACAACCACTAC
720 ACCGTCGTCCCCTTGCAGAAGAGTACGAGGCACTACGTACTCCGAGACGTGTTGGTGATG
a W Q Q G N V F S C S V M H E A L H N H Y -
BamHI
721 ACGCAGAAGAGCCTCTCCCTGTCTCCGGTAAATAATGGATCC
763 TCGTCTTCTCGGAGAGGGACAGAGGCCATTATTACCTAGG
a T Q K S L S L S P G K *